

The Home HANDYMAN

July 2016 • Vol 23 No 6
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SA'S
ORIGINAL
DIY
MAGAZINE

Children's bedrooms

Furniture for different ages

Storage ideas

Décor tips



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www.makita.co.za

Toys for 'children'

Children's bedrooms, making toys for children and where to keep the toys is the main theme of this issue. We have two projects on toymaking; one from handyman Brett Mowat and another from April's 'cover girl' Elle Franco. Continuing the theme, we interview toymaker Dolf Joubert from Empangeni. He proves that you don't need many tools to achieve some very satisfactory results when building toys.

You may have noticed that I placed 'children' in inverted commas in the title – why? Because we like toys too! For me the great thing about toymaking is that you can do much of the work while relaxing in front of your TV, or even in your study. I have always been into hobbies, like R/C cars and plastic model building. I love woodworking but don't particularly like the often dusty environment and I'm always keen to carry components away to complete the finishing details inside and in my own time. We didn't forget about those more experienced and Aarifah got a taste of what that means when she visited the Vermont Sales workshop and made a carriage clock with some help from Greg de Villiers.

In May, we asked readers if they would like to see more metalworking in the magazine. The result? Seventy-two percent of our readers were in favour of it. Metalworking is not something I'm familiar with and my biggest challenge has been finding readers who do metalworking projects regularly. Hopefully we can redeem ourselves in the months to come and I'm proud to announce there is a metalworking project in this very issue. It was provided by a reader and very generous man by the name of Tenny McKenzie. In December, he made a safety gate to enclose his entertainment area and keep his grandchildren safe. Of special interest to me was the jig that he put together to ensure that the dimensions of each of the 'bars' was near identical, bar some grinding.

Tenny not only gave us an article, but he gave another reader, John Webb, a vintage fretsaw that was 'gathering dust' in his workshop. His donation was initiated by a letter that we published in the magazine which explained John's intention to use the fretsaw to make some money. John tells us that he has already started making doll's furniture and is now looking for some plans.

We hope that you enjoy reading your magazine this month, and, as always, please stay in touch.

Gareth Greathead, Editor



The Home HANDYMAN

www.homehandyman.co.za

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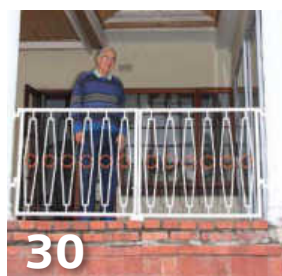
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Easy lifting

Gorilla Gripper is a brand new hand tool ideal for gripping, lifting and carrying a wide variety of construction industry building materials. This includes materials that are typically large, unwieldy and heavy, like panels of plywood, particle board, drywall, melamine, MDF, glass and marble. It features non-marring, rubberised gripping pads that pivot to remain parallel and self-adjust to the thickness of the material being moved.

The range includes three aluminium models in different sizes as well as the new Advantage model made from durable glass-filled nylon polymer.



For more information

Visit: www.gorillagripper.com
Tel: 082-564-9746

Multi tool for enthusiasts

The Makita TM3000CX2 Multi Tool's slim body makes it the perfect all-round tool for the serious home DIY'er, hobbyist and industrial user alike. It has an anti-start function to prevent accidental start-up, and a 360° multi angle setting that enables you to position accessories in 12 different angles to allow easy operation in tight spaces. The tool comes in a carry case along with a variety of oscillating accessories to get you going.

Optional accessories:

- Segmented saw blades cut wood, dry walling, plastics, copper pipes and non-hardened nails.
- Plunge-cutting saw blades are suitable for plunging in wood and metal as well as flush cutting of nails or plasterboard.
- Flexible scrapers with a low profile, narrow-tipped blade are ideal for removing window putty, caulking or scraping paint.
- Sanding pads.



For more information

Visit: www.makita.co.za
Tel: 011-878-2600



Make the cut

Tork Craft Multi-Purpose Cutting Discs are designed to cut through multiple materials, from steel, stainless steel and aluminium to stone, tiles and PVC – like a hot knife through butter! Also, since there is no swapping of discs, there is reduced downtime compared to standard bonded abrasive cutting discs. The discs require low contact pressure, resulting in less burring and little heat discolouration.



The discs comply with strict EN12413 safety certification and are free of iron, sulphur and chlorine.

Available diameters:

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For more information

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Suitable for:

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- Concrete
- Hollow and solid block work
- Hard natural stone
- Solid rock



For more information

Visit: www.sika.co.za
Tel: 031-792-6500

Powerful DIY drill

Slow drilling of holes and bit jams are a thing of the past with the powerful 900W Impact Drill from Framam. It has a 13mm keyed chuck, which eliminates slippage of drill bits in high torque loading conditions. It has a variable speed control, which allows for precision drilling in intricate applications and a hammer action for when maximum force is required in masonry applications. Ergonomics are greatly enhanced with rubber grip inlays and the compact lightweight design.

Features and specifications:

- Power output: 900W
- Chuck: 13mm
- Action: hammer
- Capacity: metal 13mm, concrete 16mm, wood 25mm
- 24-months warranty



For more information

Visit: www.lgtools.co.za
Tel: 031-717-6800



Value-for-money table saw

The Toni table saw is ideal for sawing beams, boards and other wood in the workshop and at the construction site. The saw is equipped with ample power to accommodate ripping, cross-cutting and compound angle cuts.

Features and specifications:

- Induction motor: 2 000W, 230V
- Long life 315mm-diameter blade
- No-load speed: 2 800 rpm
- Table size: 800mm x 550mm
- Table height: 800mm
- Table length extension (can also be used for width extension)
- Sturdy parallel guide/ripping fence
- Suction guard with suction hose
- Handles and wheels for easy transportation



For more information

Visit: www.newcopowertools.co.za
Tel: 011-315-1504



Smart CCTV

Yale's new Smart HD CCTV cameras and free downloadable app allow you to 'check in' on your property using your phone or tablet at any time, whether at home or away. The HD 720P resolution guarantees clearer, sharper and more defined images, which means no struggling to make out what's on the screen. The camera is waterproof and has infrared LEDs which allow night vision of up to 30m. In addition to all of this are on-board, large capacity hard drives, enabling recording for review later. The user menu interface on the app and the CCTV system, which comes with plug and play cabling, will enable you to set up the system by yourself quickly and easily.



For more information

Visit: www.yalelock.co.za
Tel: 011-761-5000

Doll's house furniture

Thank you to all at *The Home Handyman* and Tenny McKenzie Taylor from Durbanville who kindly gave me a fretsaw similar to the one shown on the letters page in the April issue.

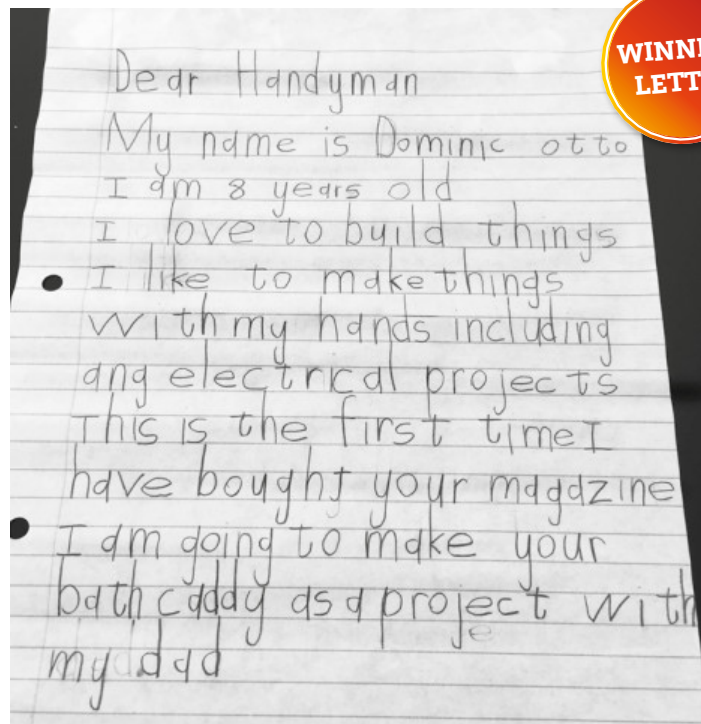
I have already started making doll's house furniture and am currently looking for suitable plans. Mike Brown wrote an article on doll's houses (May, page 43) and it included a selection of books on construction. Unfortunately, I took this up with our local book store and the publisher (Presume SA) confirmed that they do not have any copies left and they are no longer in print. As with the fretsaw, I will have to find another means of getting hold of these.

John Webb, Durbanville

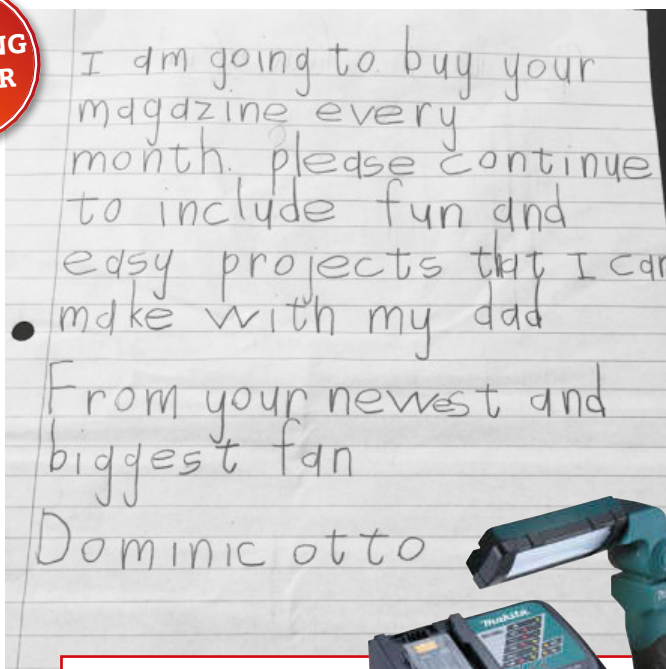
Ed replies: Hi John, thank you very much for sharing your success with us. I never cease to be amazed at the generosity shown by the woodworking fraternity. Not only did Tenny give you the fretsaw, he also provided us with a much-needed metalworking article, which you can view in this issue.



Pic courtesy John Crane



WINNING LETTER



Ed replies: Hi Dominic, thank you so much for your letter. I'm glad we were able to help you and your dad make things together. I can promise you that we will continue to provide projects for woodworkers of all skill sets. Just have a look at this issue and I'm sure you'll find something that you and your dad like. You are certainly one of our youngest and most enthusiastic readers, and I hope you enjoy your new power tool because your letter wins this month's prize.

Winning letter

This month's winning letter comes from Dominic Otto who wins a Makita DML801 18V Flashlight plus battery



Women in DIY

I picked up my dad's April issue of *The Home Handyman* magazine, which I will continue to read every month as it is a great DIY magazine! I'm a lady DIY'er and was drawn in with Elle being featured on the April 2016 cover. I would like to get formal or informal training in woodworking, furniture restoration as well as re-upholstery. I stay in Pretoria and have a full-time job. Do you know of any facilitators doing woodworking training in the area, which I can do after hours or over weekends?

Elaine Bruwer, Pretoria

Ed replies: We featured Elle on the cover because DIY is not only for men and the number of lady DIY'ers is growing. In fact, women are often more enthusiastic than men when it comes to DIY and creative crafts. John Young, who is the man to speak to regarding training, keeps telling me how many women are attending his courses and how capable they are. His facility is called Young Woodworking and Antique Restoration and you can call him on 082-883-5004. The June issue also included articles about furniture restoration and you may be able to pick up some tips there, especially with regard to products used in restoration.

Attention metalworkers:

Do you do metalwork? If so, we would like to hear from you. Send us pictures of projects you have done. Invitations to your workshop would be appreciated and I hope we can work together on projects too. This would enable me to take pictures, ask questions and learn in the process. Contact Gareth on gareth@homehandyman.co.za



Metalworking in the magazine

I have noticed a lack of metalworking in the magazine. Last year there were six articles on metalworking and, so far, this year I have not seen one. I'm not against woodworking but it has become the overriding theme in the magazine. My son is also a reader of *The Home Handyman* and has noted the same. It would be much appreciated if you could include some metalworking articles in the magazine on a monthly basis.

Victor Gardner, Cradock

Ed replies: Hi Victor, I fully understand your frustration and apologise for the lack of metalworking projects. We are aware of the problem and last month's poll asked readers if they would like to see a return of metalworking in the magazine. As it stands, the results suggest that the majority of readers would like to see more metalworking. I haven't yet managed to find someone who does metalworking projects on a regular basis. Fortunately Tenny McKenzie Taylor built a gate to enclose his entertainment area recently and he shares his success with us in this very issue.

WIN!

A Makita DHP459Z Cordless Impact Driver Drill plus battery

Share your opinion

Send us your views, ideas and opinions addressed to
The Home Handyman:

Email: editorial@homehandyman.co.za

Fax: 086 551 0749

By mail: PO Box 48, Cramerview, 2060

Letters may be edited for length and clarity

Please note: Winners' prizes may take up to six weeks for delivery once the issue is on the shelf. The prize sponsor sends out the prizes. Prizes are not exchangeable.



On trend decor



In keeping with its new theme, 'Take it Home, Make it Home', Decorex Joburg, which takes place from 5-9 August at the Gallagher Convention Centre, promises visitors ideas and inspiration for their interior and exterior spaces. Covering every aspect of your home and offering the ultimate shopping experience, this year's theme taps into the latest global design and décor trends, among these a fresh focus on the quality, detail, layering and timelessness of the 'considered home'.



Running alongside the show will be the popular 100% Design South Africa. This drawcard exhibition provides a platform for leading local design names to present a mix of top-drawer products catering to the residential, hospitality and design industries.

More than 700 decorators and designers, furniture suppliers, kitchen manufacturers and paint and décor specialists will be exhibiting. These companies have spent months in preparation to ensure the very best of local and international home and interior trends, products and services are showcased.

Tickets:

Adults: R110, students and pensioners: R90, children under 12: R20.



For more information

Visit: www.decorex.co.za

Grand ideas

In May, the editor of *The Home Handyman* Gareth Greathead presented at Grand Designs on the closing weekend of the show. On the first day, he demonstrated how to make the PVC towel rail seen in the November 2015 issue. On the Saturday he demonstrated how to make a simplified version of the cat scratch pole seen in the October 2015 issue.

Gareth says, "It was my first time presenting live and I thank the show organisers for the opportunity to try my hand this. The biggest challenge for me was trying to complete the projects in the allocated time while interacting with the audience, who got pulled in to assist. It wasn't easy but having Black+Decker, Stanley and DeWalt power tools to work with made the task easier. Someone asked me how I would rate the Black+Decker power tools. My response was that B+D is a very progressive brand and has introduced several innovations in the arena. The tools are competitively priced and offer above average value for money. I hope to use the lessons I learnt in presenting more and hope to return to the show in 2017."



Gareth Greathead explaining how to make a poolside towel rail at Grand Designs 2016

DIY and social media

As most can attest, social media has become one of the most widely used sources of inspiration when it comes to DIY. Unfortunately, the very same medium has resulted in children being distracted and absorbed by gadgets like cell phones and tablets. Luckily there is an avenue where parents can take advantage of this craze by encouraging practical,



hands-on activities using social media. The DIY Kidz channel on YouTube, which makes use of tools sponsored by Bosch Power Tools, encourages youngsters to bring their imagination to life. DIY enthusiast Annalien Gensemann, the creator of the DIY Kidz channel, has been actively involved in DIY since 1995. She has presented shows like *Timmertakies* on KykNET as well as the *Get It Done* show on the Home Channel. Her latest 'invention' caters for children between the ages of seven and 13 years and was started last year in Annalien's garage.

Make toys for charity

For many, much of the joy of toymaking comes from making a young child smile. The Witwatersrand Woodworker's Association holds its Toys For Charity event at the end of November annually and gives you the opportunity to put your toymaking skill to good effect. Last year the Association donated 1 100 toys and R20 000 was raised for charity, less than the record number achieved the year before. This year it would like to break the current record and it needs your help – so get building now.



For every 10 toys you donate, with special consideration given to toys of an intricate or unusual nature, you earn an entry into the raffle. The toys collected are donated to Westview Clinic and distributed amongst 65 child development crèches through its Project Home campaign.



For more information

Visit: www.wwa.org.za
Tel: 079-895-8709

All about indigenous trees

With so much interest being shown in the 'Tree of the month' page we are glad to announce the recent release of *Guide to the Properties and Uses of Southern African Wood* published by Briza Publishers. The book contains information on 140 species of which 134 are indigenous and six are introduced.

The information on each species includes a description of the wood, its mechanical properties, woodworking properties and uses. Photographs of the untreated and treated side grain are included as well as a description of the macroscopic structure and a photograph of the end grain (at 10x magnification) as a guide to identification of the species.

In addition, eight introductory chapters cover most aspects of indigenous wood. These include where the trees grow, a history of indigenous wood utilisation, availability and sustainability and practical tips on working with indigenous wood. Tips for wood identification and the properties of each wood are covered.

The format of the book is unique, in that the technical data on species is presented alongside personal comments from wood users. The text is supported by high-quality photographs of items made using those woods.

Guide to the Properties and Uses of Southern African Wood was written with a diversity of end users in mind and will appeal to professional woodworkers, designers, architects, wood dealers, wood and furniture collectors, hobbyists and those who simply love trees and wood. It will also serve as a valuable research and educational tool.



Water pressure issues

We live in the Midlands of KwaZulu-Natal and in the interest of water conservation our local municipality switches the water off between 9pm and 4am. This is primarily due to our water system being so old that main water pipes often fail with major water loss occurring until one of the municipal plumbers can get there to stop it.

Since this practice began, we have had major water hammer problems due to air in the system in the mornings. It is so bad that one of our neighbours had their showerhead blow off one morning. Is there anything we can do to reduce the impact of air in the system?

Greg Bailey, Hilton

National training manager at Cobra Watertech, Patrick Gordon, replies: The cause of the water hammer is definitely due to the air trapped in the system when water mains are restored in the morning. There are two things that I would recommend:

1. By placing a spring-loaded, non-return valve in the line that supplies water to your residence, you will prevent any water from your system flowing back into the municipal mains.
2. You can also fit an air release valve at the highest point of the system so that any air that may be trapped in the system will automatically be purged when water pressure is re-established.



For more information

Visit: www.cobra.co.za
Tel: 011-951-5000

Staining a wooden table

When staining a large tabletop it is suggested that you stain a section at a time, but when moving to the next section it needs to overlap and the overlapped section tends to be darker. How can I stain the wood without getting this darker overlap?

Leonard Simpson, by email

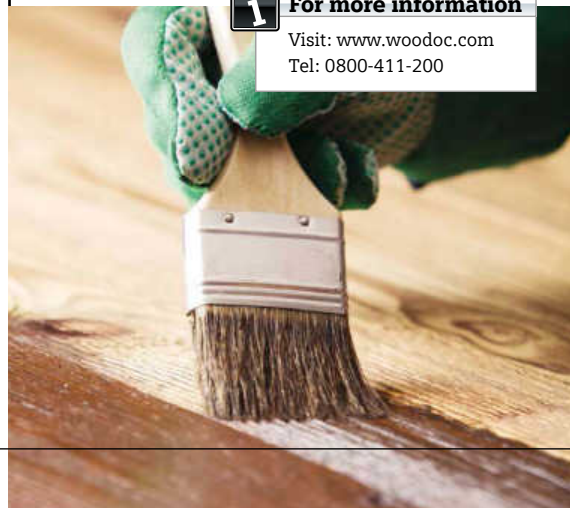
Frikkie Greeff, managing director at Woodoc, replies: The different rates at which a piece of wood absorbs a stain makes it difficult to apply stain without an overlap showing if you use conventional spirit-based stains or dyes. The reason for this is that the low-viscosity stains and dyes penetrate rapidly and a higher concentration of stain is absorbed by the wood where your stroke ends.

This is one of the reasons why Woodoc developed stain concentrates that are mixed into the appropriate Woodoc sealer. When a Woodoc sealer is applied to wood, it penetrates until the wood reaches its saturation point. Only then will it start to build up on the surface of the wood. The sealer visible on the surface is what carries the stain, hence the colour will be consistent without overlaps and blotches. Therefore, if a tinted Woodoc sealer is applied to wood according to our application instructions, you can easily and repeatedly achieve an even finish and colour as the amount of product visible on the surface should be equal over the whole surface of the wood.



For more information

Visit: www.woodoc.com
Tel: 0800-411-200



The effect lead has on paint

I recently bought gloss enamel paint from a well known paint manufacturer. The surface was well prepared and coated with a white universal undercoat, also from a well known paint supplier, and left to dry properly. When I applied the top coat (sunflower yellow), it appeared as if the paint did not stick to the surface well and that several strokes of the brush were required to get some sort of coverage.

The painted surface appeared to be oily and transparent with very poor coverage with the first coat. My first thought was that the brush was to blame, but even a new brush produced the same results. When the second coat was applied, it was clear that even more coats would be required to bring out the real colour of the paint. To aggravate the situation, I realised that due to the thin film of paint, even the smallest irregularity on the surface was also magnified.

During a discussion with the technical department of the enamel paint manufacturer, I was told that the cause of the problem is the removal of lead from the paint. According to them, all paint manufacturers experience the same problem. My question is, are we left with inferior quality paint due to the removal of lead and what can be done to solve this problem?

Eben Smit, by email

Technical service consultant at Prominent Paints, Pieter Greef, replies: Removing lead from paint has caused pitfalls that can and will be overcome. Firstly, lead was used in paint as a colourant, with chrome oxide (lead chromate) and red lead (lead oxide) the two main lead-containing colours. Secondly, white lead (lead carbonate) was used in paint to impart density and opacity.

The brighter the colour, the less opacity it will have and coverage is compromised. Lead chromate in a yellow colour would have assisted in enhancing the opacity of the final product. Due to the use of less titanium dioxide or lead carbonate (in the old days) in the translucent base used to tint the specific colour, manufacturers must instead make use of colourants to enhance opacity of the product.

Lead-free colourants are more expensive to manufacture as inorganic and organic colourants, pigments and surfactants are used. Different grades of colourant are available and uninformed use of inferior ingredients will affect the coverage of the product. The cost of brightly coloured paints has increased substantially due to the steps required

to create a close equivalent colourant. Most manufacturers choose to reformulate their colours to improve coverage. It is the onus of the paint manufacturer to equal the opacity as close as possible to the old lead chromate.

To date there has not been a true, direct replacement for lead oxide or lead chromate in South Africa. Pigment manufacturers are continuously working on closing the gap between lead-free colourants and lead oxide or lead chromate. Continuous improvement is being noted.

WINNING QUERY



For more information

Email: pieter.greef@prominentpaints.co.za
Tel: 011-389-4700

Winning query

This month's winning query comes from Eben Smit who wins a Bessey Utility Folding Knife Set from Vermont Sales



WIN!

A set of seven Felo screwdrivers from Vermont Sales

Ask our experts

Send us your DIY queries and you could win!

Send your query to:
The Home Handyman DIY Queries,
PO Box 48 Cramerview, 2060 or Fax: 086-551-0749
Email: editorial@homehandyman.co.za
Remember to include your physical address and telephone number during office hours.

Please note: Queries will be answered in the magazine. Winners' prizes may take up to six weeks for delivery and are sent by the prize sponsor. Prizes are not exchangeable.



Furnishing your child's bedroom

Your child's furniture requirements will evolve from a functional and delicate nursery for your tiny tot to the minimalistic rooms popular with modern teenagers

By Gina Hartoog

As a parent, there is nothing more rewarding than being able to provide your child with a beautiful room to call their own. Whether you are just starting out on your parenting journey and designing your first nursery, or moving your child to a 'big girl' or 'big boy' room or a first teen room, there are important elements to consider. These include colour and theme choices, paint types and safety, soft furnishings and furniture. Your child's room needs to be functional and easy to tidy up, but it should also be theirs – a fun space to play, sleep and just be themselves.

Ages and stages

Choosing furniture is a big part of getting the room right in terms of functionality. What a tiny newborn needs right now, a seven-year-old or teenager obviously does not require. Your child will outgrow his or her bedroom furniture and you will need to adapt or replace various pieces. With this in mind, many parents are tentative about making a commitment to expensive furniture.



Your child's room needs to be functional but also a fun space to play, sleep and just be themselves in

Nursery furniture

The nursery is the first room on your parenting journey. Nursery items are very functional. They need to provide adequate storage space, a safe place for baby to sleep and a changing station. Consider your personal requirements and how you can 'reuse' pieces as your child grows. A savvy baby changing station can be later used as a chest of drawers or a nursery rocker can be placed in the lounge.

Kitting out a nursery can be expensive. Some pieces are designed with the growing child in mind. Nathalie Vos, company director at Bunny & Clyde, says that their pieces are able to convert to other items that can be used well beyond the baby years. "All of our cots convert into a safety-sided toddler bed that can be used until the child is approximately six years old," says Natalie. "The toddler bed can be converted into a daybed sofa that can be used anywhere in the house where some extra seating may be required."



Important nursery items include a safe place for baby to sleep and adequate storage space

Tips for decorating your child's room

- Decide on a budget and calculate costs for new furniture, storage items, paint and/or wallpaper, soft furnishings and if there are any speciality pieces you want to include.
- Consider your preferences, but more importantly your child's likes and dislikes. Even a three-year-old will have an opinion on what they like. The room is your child's room. It shouldn't be the room you didn't have as a child.
- Take your child with to the hardware store and have a look at paint colour samples together. Take into account the colours your child likes, but guide him or her with regards to matching colour schemes and what will work in your home. See the box 'Colour and your child's bedroom' for more information.
- A theme links colours, furniture and décor together and creates a uniform space. If you are not sure what your child would like, give him or her five to eight themes to choose from and build your colour palette around this. Building around a theme can be fun and it doesn't need to be expensive. For example, you can replace knobs on a chest of drawers to tie in with the theme, or add a canopy to a standard bed to create a 'princess' look. Themes can 'age' almost as quickly as your child, so make sure he or she understands just how long they will have this particular room. For example, a dinosaur theme may be great for a three-year-old, but will your 10-year-old still be T-rex crazy? If you opt for the dino theme, you will probably need to commit to changing the room within the next five years.

Furniture for toddlers, preschoolers and school children

As you plan a new bedroom for your child at the various stages, consider his or her immediate requirements for this life stage and prioritise those, along with storage requirements.

"Children spend a lot of time in their rooms, and although functional, timeless furniture pieces are a good place to start, it is important to make sure that their rooms have elements of fun and items that reflect their own little personalities," says Anna Stephens, owner of Treehouse Children's Décor Co.

Anna says that when choosing furniture, look for pieces that are durable. "Space is an important consideration," she adds. "A bunk bed would be a good choice for children sharing a room and where space is more limited. Make sure the room is not too crowded with furniture and there is enough space to play unrestricted."

Before purchasing any piece of furniture, consider the safety of the item. Materials should be safe and non-toxic. Children can be tough on their furniture, so items need to be of good quality, able to take a few knocks. The furniture also needs to be free of sharp corners or protruding screws that may cause injury. If painted, check that the manufacturers use a guaranteed lead-free paint.

Beds

After the cot, some parents opt for a toddler bed, with a built-in safety guard before transitioning to a standard single or three-quarter bed. This is a personal choice. Safety rails can be added to a standard bed. You can make the rails yourself or purchase a ready-made product. See the box 'Choosing a mattress.'

Storage space

This is paramount in a child's bedroom and needs to be carefully planned. You need places to store your child's clothing as well as toys, games and books. Storage units can be part of the overall theme of the room, or functional, like toy boxes for easy tidying up after a play session. A large bookshelf or room divider can double as a place to store books, toys and showcase a few special items. To save space, consider flat toy boxes that can be stored under the bed.

Remember to use lead-free paint for your child's room

Colour and your child's bedroom

"Colour is one of the most expressive elements," says colour specialist Helen Gurura, exclusive marketing manager at Dekade Paints. "Its quality affects our emotions directly and immediately. A function of colour involves its ability to create mood, to symbolise ideas and to express personal emotions. In choosing colours for children's rooms, the mood has to fit the function of the space and not merely entertain the senses. A child's study has a different function to that of a play area, and the palettes chosen should best support the work-related or social tasks to be undertaken in that space."

Helen offers the following guidelines to consider when selecting a colour for your child's room:

- Determine what the primary role of the room is. Is the space used to sleep, rest, play and/or study in? An answer to this key question will serve as a guide in helping you choose the right colour scheme for the space.
- Consider the child's gender and age, the size of the room, the amount and quality of natural and artificial light and lighting, the architectural design of the space and the existing fixed fittings in the room including carpets, tiles, built-in cupboards and even railings. Take into account the mood you would ideally want to create within the space and, where applicable and dependent on age, the child's personal relationship with colour, as everyone develops their own unique partnership with specific hues over time.
- Bear in mind the harmony of colours, not only in the child's room, but also within the entirety of the home. Do the colours in your child's room flow well with the adjacent room colours? Remember that colour is not seen in isolation, but in the company of others that surround it.



Storage units can look appealing and form part of the overall look of the room

Paint for kids' rooms

Safety is paramount when choosing paint for children's rooms. Lead poisoning is entirely preventable yet the World Health Organisation estimates childhood lead exposure to contribute to about 600 000 new cases of children with intellectual disabilities every year. Executive director at The South African Paint Manufacturers Association (SAPMA) Deryck Spence says, "There are a number of smaller companies in South Africa that continue to produce paint that contains unacceptably high levels of lead. This is in spite of legislation under the Hazardous Substance Act, which states that paint sold through the retail sector may not contain more than 6ppm of lead. You can ensure the safety of your paint by buying from SAPMA members who subscribe to a code of ethics that includes the non-use of lead."

When painting the walls of a room, it is always advisable to vacate the room until the paint has dried. Deryck says, "Modern paints are designed to dry fully within two hours. If you are painting wooden cabinets or doors with solvent-based enamel paint, there will be a slight odour and the intensity of the odour depends on the quality of the product and the manufacturer. This can also be offset by purchasing water-based enamel paint, again from a reputable manufacturer."

The paint product you choose should be:

- Non-toxic, 100% lead-free
- Zero volatile organic compounds (VOCs)
- Low odour
- Quick-drying
- Environmentally friendly
- Low sheen, stain resistant and washable

Source:

Evolve Kids from Prominent Paints



Colour and décor has the ability to affect your mood



Bright idea

Wall stickers are a popular trend – choose images to go with a theme or popular quotations. Also available are 'blackboard' stickers, which allow your child to get creative with chalk, or even more functional, provide a place to practise spelling words.



"Look at the photographs in wallpaper sample booklets for a source of inspiration for kids' rooms. While paint is all about colour, wallpaper can add dimension and texture to any space." Karin Shave, brand director, Shave Paint & Décor

Pic courtesy Shave Paint & Décor

Space-saving units

If your child's room is small, consider a space-saving unit that gets the bed off the floor, with a study or play area below. Some units can also be easily converted as your child grows.

Speciality or themed pieces

If your budget allows, these are pieces that fit in with the theme of the room, for example a racing car or princess bed. They are very popular for younger children, but you will have to replace the furniture when your child outgrows them. Also under this category you will find items that may not be 'furniture', but are very much a part of the childhood experience and overall décor of the room. Items include a doll house, teepee tent, table for block building, racing cars for painting, small kitchen units for playing house, a doll's crib, sit-on cars and many others. Avid woodworkers should be able to make a few custom pieces the child can treasure. ✂

Sources:

Information supplied by: Bunny and Clyde – www.bunnyandclyde.co.za; Treehouse Children's Décor Co – www.treehouseonline.co.za; Helen Gurura, Dekade Paints; Evolve Kids from Prominent Paints – www.evolvepaints.co.za.



Some cots can convert into a toddler bed for when the child is older

Pic courtesy Bunny & Clyde

Study zone for older kids

From Grade 4, your child will likely write formal tests and exams and will need a dedicated place for study and homework. Here are some required items and points to consider:

Desk and chair

Choose the right chair height for your child before selecting a desk. When sitting at the desk, your child's feet should be flat on the floor, supporting a knee angle of 90°. A step stool can be placed under the desk to obtain the correct height. The desk should be a comfortable size to accommodate school books and study materials. With the feet flat on the floor, the desk height should be at elbow level, with the arms forming a 90° angle at the elbows.

Lighting

If natural lighting in the room is poor or your older child studies at night, provide a desk lamp. For normal illumination, choose 60W or 13-15 for CFLs, but if the area is particularly dark, choose 75W or 18-25 for CFLs. Select natural white or cool daylight lamps for less strain on the eyes while reading. For safety, especially for younger children, choose a clip-on lamp or a lamp with a heavier base. Very flimsy lamps are likely to get knocked over.

Ventilation

A stuffy room can leave one feeling lethargic, so if your child does close the door for privacy while studying, make sure he or she opens a window.

Storage

Set up a storage place for textbooks. A bookshelf or magazine storage boxes work well. Where possible, opt for wall storage and keep the desktop clear. Stationery can be kept in a box or tray on the desk. A good system will ensure that your child learns to file and store items in their proper places from an early age and learns to avoid wasting time searching for lost items.



Your child will need a dedicated place to study and do homework

Choosing a mattress

A good quality mattress will support your child's body, so he or she can get the restful sleep needed for growing and learning.

- Choose the correct size mattress for the size of your child's bed.
- Choose a product that is hypoallergenic and antibacterial even if your child doesn't yet suffer from allergies. This can prevent problems down the line.
- There are a number of different types of mattresses available – high density foam and innerspring mattresses and the more costly memory foam and latex mattresses. Each comes with its own set of pros and cons and price tag. You'll need to consider what you can afford, the age of the child, how long they will likely use the mattress, if you can pass it on to another child or if your child has a physical disability and would benefit from a particular type of mattress.
- If you are buying a mattress for a tween or teen, take them to the mattress store and let them try out the mattresses. The firmness of a mattress is a personal choice – some people like a very firm mattress, others prefer a medium or softer feel.

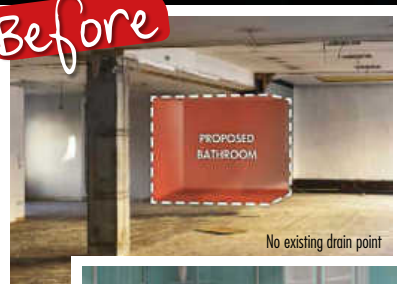
Sara



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PLUMBING THE POSSIBILITIES



Sunshine and happiness

Elle Franco, lady DIY'er and presenter of *DIY with Elle* shows us how to bring sunshine to little hearts




One of my best friends is having a baby; it is a very exciting time and what better thing to do than give a handmade gift. Storage is key in a child's or baby's room and this inspired me to come up with something that would not only save space but look adorable too. The project can be completed within half a day and the supplies are inexpensive.

I bought all my wood from Builders, and they cut my boards to size free of charge. If you have scrap pieces of board or pallet wood lying around, you can make use of that and scale the project accordingly.

Step-by-step guide

Step 1: The first thing you need to do is decide how long you want your sunshine

Project guide

-  Difficulty: Beginner
-  Estimated cost: ±R200
-  Estimated time: One day

and clouds shelves to be. I bought a piece of pine shelving 600mm long by 150mm wide. For the back and front pieces I bought a piece of plywood and had it cut to size in store. This free service saves me time on cutting and I don't have to carry a massive board in my hatchback.



Tip

The board you use doesn't have to match the length of your pine shelf.



1

Work out how much material you have to work with and draw your clouds

Step 2: Time to draw – clamp your plywood board to your workstation; I used spreader clamps. Start by drawing the first cloud, this will be attached to the front of the pine shelf later. When drawing the first cloud, be aware that it will have to be smaller than the second cloud with the sun. If the first cloud is too big, it will obscure the one attached to the rear of the shelf when assembled.

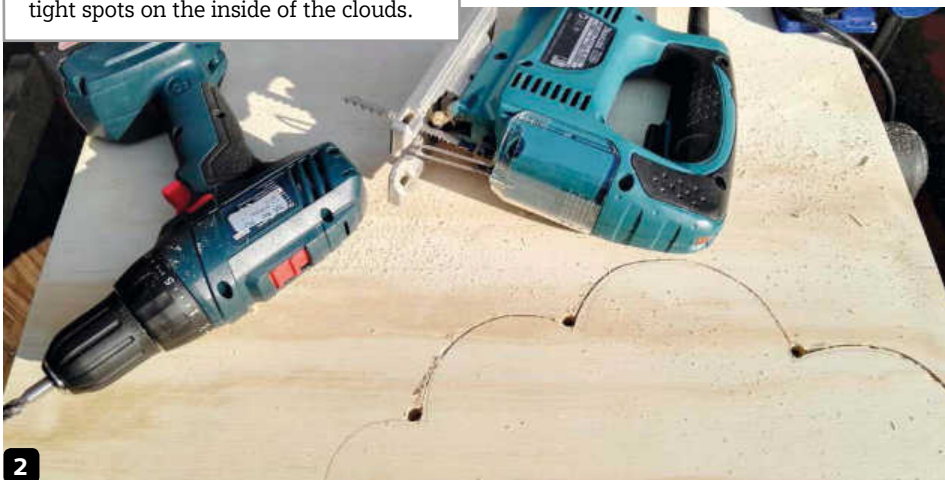
Now you can draw your second cloud with the sun peaking over some of the cloud. I drew freehand but there are patterns on the Internet and you can print, trace and draw your animated clouds that way.

Step 3: Once you are happy with the shape and overall look of your sun and clouds, use your jigsaw to cut out these shapes from the plywood board. I always test my jigsaw before use and select a blade depending on the materials I'm cutting. In this



Tip

I found that manoeuvrability of the jigsaw was limited when trying to guide the jigsaw around the curved lines of the clouds. To solve this, I used my cordless and an 8mm drill bit to drill holes at the tight spots on the inside of the clouds.



2



Materials

- One 700mm x 500mm x 8mm plywood board
- One 600mm x 150mm x 22mm pine plank
- Four 1m dowel sticks (5mm thick)
- Wood screws
- Fine grit sandpaper
- White and yellow paint
- Wood filler
- Wood glue



Tools

- Tape measure and pencil
- Sanding block
- Jigsaw
- Fine tooth jigsaw blade for wood
- Cordless drill/driver
- Brad point drill bits (5mm and 8mm)
- Paintbrush
- Spreader clamps

instance I used a fine tooth wood blade to avoid splintering or chipping. Also, be sure to wear safety goggles and gloves at the very least.

Step 4: It is time to insert the 5mm wooden dowels into the half circle shape of the sun peering through the clouds. For this you will need a 5mm drill bit and your cordless drill/driver. Grab your tape measure and curve it along the line of the sun and make markings for the rays. I spaced mine at 30mm increments along the curve of the sun. With that done I clamped the piece on my workstation in between two pine offcuts and drilled 20mm-deep holes along the width of the plywood. The plywood I used was only 8mm thick and the holes needed for the dowel sticks (rays of sunshine) were 5mm thick, not leaving much room for error. I did my best to drill dead centre of the markings. I went very slowly, holding the drill evenly and steadily so as not to split the wood.

After struggling to move the jigsaw blade around the tight corners I decided to drill some holes to help out



3

The first cloud has been cut – it will be attached to the front of the shelf later on



Tip

If you feel you are splitting the wood, or the hole is not dead centre, manipulate the bit towards the back surface of the sun and clouds as it will rest against the wall and won't be seen.

Step 5: Cut your dowel sticks to size. I clamped them down and used the jigsaw to cut them to 250mm in length. Once they were cut to size I put a little wood glue on the ends and inserted them into the holes made around the diameter of the sun shape. I wiped off the excess glue and allowed time for the glue to dry.



The second cloud is larger than the first and includes the sun



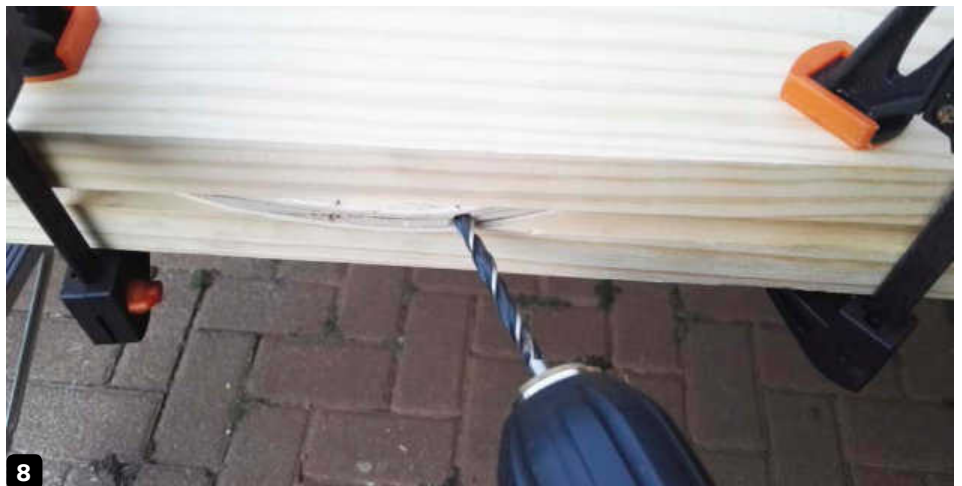
After the cloud and sun shapes have been cut, sand the edges with some fine grit sandpaper



Measure along the curved edge above the sun and mark the spacing for the dowel sticks



To prevent drilling into my hands I chose to clamp the 'sun' in-between two offcuts



With the board clamped safely in place drill holes for the dowel sticks

Step 6: Now to bring a bit of colour to your project. I painted the clouds white and used some yellow spray-paint (I had left over from pervious project) for the sun and rays.

Step 7: Once the paint has dried it is time to assemble the shaped plywood boards to the pine shelving. I drilled wood screws through the bottom of the sun and clouds and into the pine shelf, butting it to the rear of the shelf. I applied wood glue to the front edge of the shelf, clamped the smaller



9 I decided to cut the 5mm dowels 250mm long



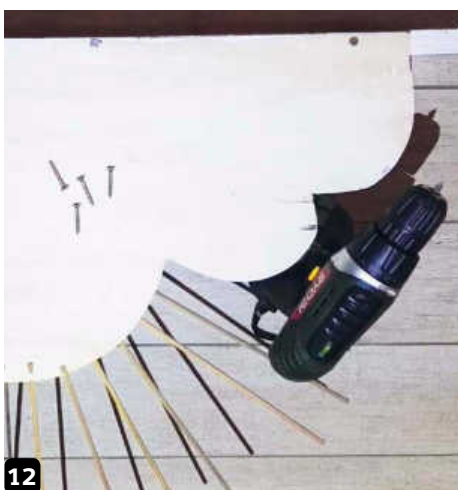
10 Once you have some well proportioned sun rays you can glue these in place

cloud in place and allowed the glue to dry. I didn't want exposed screw heads showing on the cloud in the forefront. You may want to screw it in instead – if you drill pilot holes, countersink the holes, insert screws, fill with wood filler and then paint, the screw heads will not be visible.

Step 8: Anchor your DIY sunshine and clouds shelving onto a wall inside the little one's room and place teddy bears and children's books on the shelf. ✖



11 It is best to paint the shaped pieces as well as the sun and shelf before assembly



12 The rear sun and cloud shaped piece was attached to the shelf at the base using screws



13 The cloud in front was glued to the front of the shelf with glue only



Secret hideouts

Having secret storage spots in your bedroom is a great way to hide valuables from prying eyes, medicines from children and keep clutter from detracting from your décor

By Loren Shirley-Carr

We all have things we would prefer to keep out of plain sight – family heirlooms, wedding rings, expensive jewellery, medicines or even weapons. Sometimes we just want to keep household items hidden in order to declutter a space. Whether you want to hide items for safety or financial reasons, or simply want to keep your bedroom tidy, there are a few clever storage ideas that could help you out.



A lift-up lid ottoman can serve as a wonderful storage space



Secret drawer space

Create a false bottom in one of your drawers to render your valuables almost impossible to find. There are a few ways to do this, you just need to ensure that you find wood that matches your drawer and size it so that it fits perfectly into the space with no gaps along the sides. You can either use a magnet system or a hook to raise the false bottom when you need to get to your hidden stash.

To use the magnet system, you will need measuring tape, wood, medium sandpaper, washers, Super glue, strong magnets.

Step 1: Measure the inside of your drawer.

Step 2: Go to your nearest hardware store and buy a piece of wood with a similar colour and grain to your drawer. Ask them to cut the wood to your specifications.

Step 3: Place the wood on your work table with the top half facing down.

Step 4: Glue a washer in the middle of the piece of wood and on each corner of the wood, keeping them about 2.5cm away from each edge. Glue another layer of washers, and keep stacking until the supports are as tall as you want your secret compartment to be. Allow the glue to dry completely.

Step 5: Fill your drawer with your valuables and place the false bottom over them.

Step 6: Use a strong magnet over two corners on top of the washers to pick up the false bottom.

You can use this method to create a similar false back in your cupboard.

Faux book spines

An attractive way to keep unwanted clutter or valuables out of sight is to hide them in a box made to look like a row of books that you can slide onto a shelf. You can either make a wooden box to suit your specifications or quickly cover a sturdy cardboard box for an instant solution.

You will need: a wooden or cardboard box, six or seven hardcover books, utility knife and hot glue gun.

Step 1: Measure the shelf you want to slide the box into, then choose a wooden or cardboard box to fit this measurement.

Step 2: Measure across the box and choose the amount of books to correspond with this measurement.

Step 3: Using the utility knife, cut the inside binding of the book – the front and back cover – and take the pages out.

Step 4: Then cut both sides of the spine, leaving about half an inch of the cover on either side of the spine to fold over the back of the spine to give a three-dimensional look.

Step 5: Fold over the half inch pieces of book cover and glue down using the hot glue gun. (If you want each end of the box to have a book cover, leave the front cover and back cover on two of the books respectively and use those for both ends of the box).

Step 6: Repeat the above process until you have cut all the spines out of the books. Glue the spines to the box, right next to each other.



1 Cut the inside binding of the book to separate the pages from the cover



2 Cut down both sides of the spine, leaving about half an inch on either side



3 Fold the sides over the back of the spine to give a three-dimensional look



4 Once all the spines are cut, stick them next to each other on the side of a box



5 Position your book box on a shelf amongst your other books

Furniture doing double duty

There is a wide variety of furniture nowadays that can perform two functions – one of them being a hiding spot for precious items or clutter, for example, a standing dressing mirror that doubles as a lockable jewellery cabinet.

Beds are available with a storage area under the mattress in the base with a lift-up frame that enables you to store bed linen, blankets and pillows out of sight. Alternatively, under-bed storage drawers can be fitted to your current base, on drawer rails, for easy access. A lift-up lid ottoman at the foot of your bed can provide a place to sit and serve as a hidden storage space for linen, towels or even your seasonal clothing.

Convert some of the décor or furniture you already have into clever secret storage spots. Have any oversized wall art? Use it for hidden key or jewellery storage. Choose a picture frame that has some depth at the back, and attach it to the wall with two hinges on one side. Then put in some hooks and hang your keys. Alternatively, construct a simple, shallow shelving space behind your artwork, and attach the frame to the shelving with hinges.

Similarly, you can convert your regular bathroom medicine cabinet into a focal point, and fool guests (and children), into thinking it is simply wall art, by swapping the mirror door with a piece of framed art.



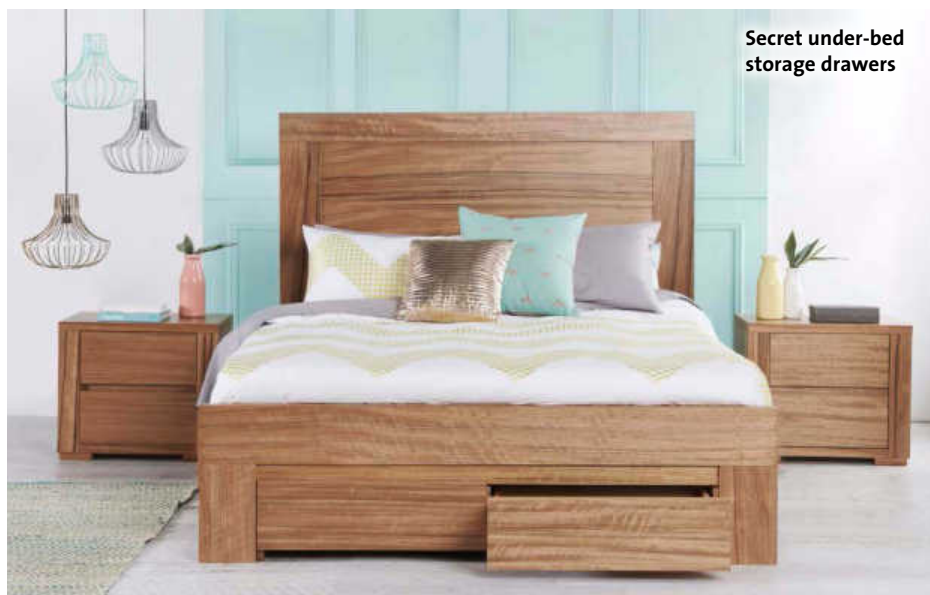
▲ Convert a bathroom cabinet into a focal point by putting a painting in place of the mirror



Lockable jewellery cabinets that look like a cheval mirror are ideal for keeping precious jewellery safe



◀ Hide valuables behind a painting



Secret under-bed storage drawers



Secret hiding spot inside a fake pot plant
www.instructables.com

Quick hideaways

If you have small items like rings, money, car or safe keys that you want to hide in the event of a robbery, be creative and come up with your own hiding places. For example, sew them into your curtain hems, place them in the pages of a book, secret them away in a pot plant or tape them to the underside of a shelf. Just remember where you have hidden them and tell someone in your family, just in case!



Tidy away clutter by keeping things inside a stylish ottoman



Ottoman chairs fit neatly under a table



A unique underseat hiding spot
www.instructables.com

Project guide

Difficulty: Beginner



Estimated cost: ±R200



Estimated time: Two days



Make a wooden push cart

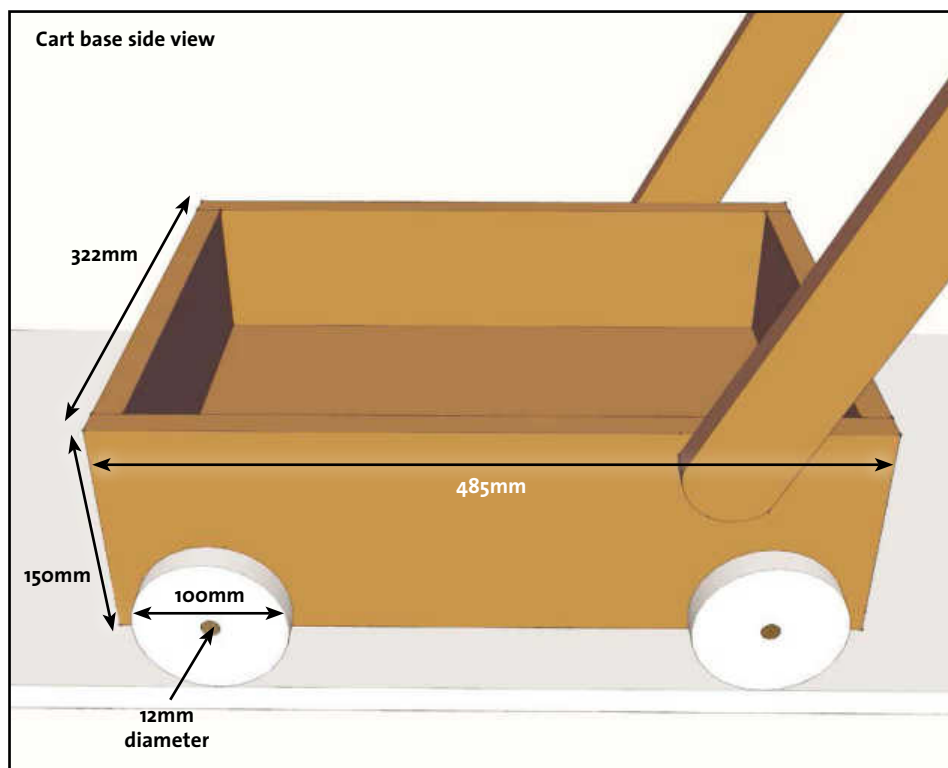
Brett Mowat explains the techniques he used to make a simple wooden cart for a youngster

Brett recently moved to the Empangeni region in KwaZulu-Natal and battled to find suitable work. In the meantime, he has started a business doing maintenance and making wooden items to earn an income. "I have enjoyed doing woodworking in my spare time and figured it was a good way to keep busy and make some money at the same time. My wife suggested I make wooden toys for children and this has become my focus."

In addition to the push cart, Brett has made two go-carts, one small and one slightly bigger, a 2.4m bookshelf and a base for a bed. "I enjoy the unique designs people request – it challenges me and furthers my woodworking skills. With some knowledge of what people want, I'm currently in the process of developing a catalogue of wooden toys, both educational and fun, that people can order. My current circumstances may, in fact, be a blessing in disguise because I enjoy the creative and production process used in woodworking. Also, there is so much beauty in the wood I work with. The flexibility and its ability to take unique form it makes it both interesting and challenging to work with."

Working out the dimensions

"My wife, who is an occupational therapist, scaled the cart for a child between 18 months and two years of age. She then made a template of approximate dimensions. I used these in planning and refined them where necessary."



Tools

- Cordless drill/driver (13mm chuck)
- 3mm drill bit (pilot holes)
- Circular saw or table saw
- Electric or hand planer
- Jigsaw with fine tooth wood blade
- Optional: hole saw (100mm diameter for wheels)
- Fine tooth hacksaw
- 12mm drill bit (for axle dowels)
- 15mm drill bit (for dowel handle)
- Countersink bit

Step-by-step guide

Step 1: With consideration to who will be using the cart, decide on the box size, handle size and wheel diameters. The angle of the handle to the box of the cart is of particular importance and requires use of a bevel gauge or protractor to fix it at a specific angle.

Step 2: Draw up and insert the sizes in CorelDRAW using a virtual board to make sure the board you buy will be enough to complete the project. The diagrams here were created with SketchUp and a free trial can be downloaded from the net.

Step 3: With this done, you can confidently purchase the wood, dowel sticks, screws and paint. I couldn't find purple enamel, so I had to get white enamel and tint it with an enamel compatible tint.

Step 4: Pencil the sizes of the panels, wheels and handles onto your board.

Step 5: Straight edges are essential when making a box type structure, so setting up



Materials

- Wood glue
- Wood primer paint
- Enamel paint
- Mineral turpentine
- Six 4mm x 16mm countersunk wood screws
- Twenty-eight 4mm x 40mm countersunk wood screws
- Sand paper: 100-grit to 300-grit



Cutting list

- Sheet of 19mm shelf pine
- Left and right sides: Two 485mm x 150mm
- Front and back sides: Two 315mm x 150mm
- Floor/ base: One 445mm x 315mm
- Wheels: Four 100mm diameter
- Handle sides: Two 400mm x 60mm
- Handle dowel: One 398mm x 15mm
- Wheel dowels: Two 401mm x 12mm



Hint

A push cart is an ideal toy to help babies gain confidence when learning to walk.



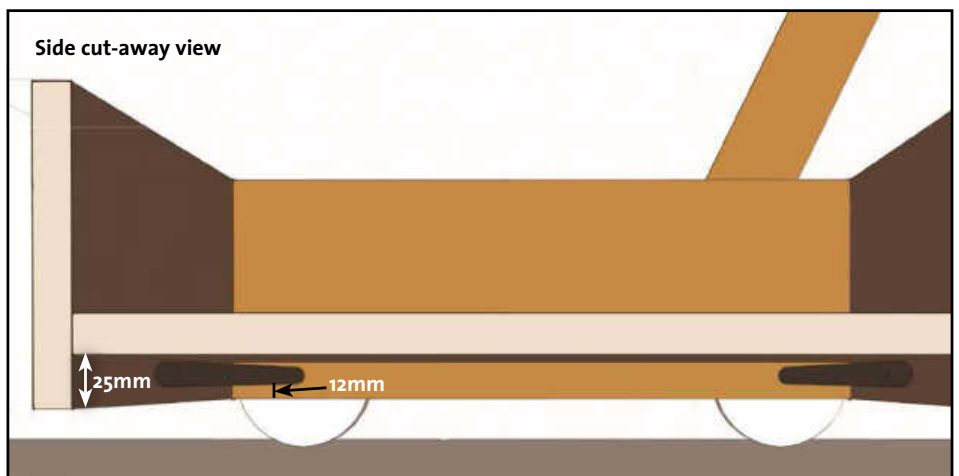
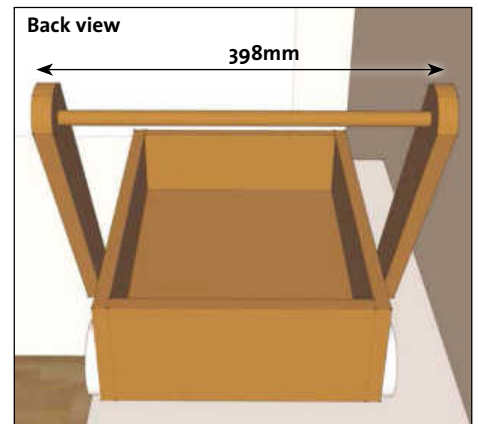
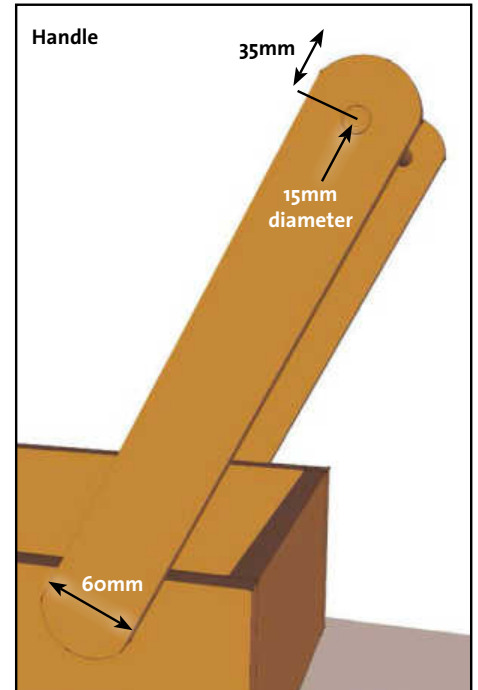
the circular saw or table saw properly is crucial. I have my circular saw housed on my workbench; this makes cutting easier and more accurate. I used a fine file to clean up and straighten the edges where slight deviations occurred. Don't be afraid to use everyday objects to assist in marking shapes on the wood. I used the lid from a tin to set the radius of the handle ends.

Step 6: Mark where the floor of the cart will meet the side panels. Drill holes for where screws will be used to butt join the base to the side panels. Position the floor (base) of the cart in place to keep the side panels square.

Step 7: Screw in a couple of screws to hold the base in place, and move around the circumference and countersink each hole to conceal the screw heads.

Step 8: Mark the position where the axle dowel sticks will be inserted. It is important to drill the holes for the wheel axles high

enough away from the underside of the cart to prevent it scraping on objects on the ground. I drilled 12mm holes 3mm below the fixed base and drilled the same size holes in the centre of the 100mm-diameter wheels. The holes made in the sides of the cart need to be enlarged slightly so the axle dowel can rotate easily.



Step 9: Gauge how long the dowel sticks need to be and cut these to length.

Step 10: Fix the wheels to the dowel stick, making sure there will be a big enough gap between the wheels and the side of the cart to prevent rubbing. Pre-drill the dowel ends in their centres 13mm deep and countersink the hole to accommodate the 16mm-long screw to come and screw in the screws. This will wedge the dowel in the wheel, preventing it from coming off.

Step 11: Mark the radius on the handle tops (I used the lid of a can) and cut these out with a jigsaw and fine tooth wood blade. You can use a 100mm hole saw if you have one.

Step 12: Hold the handle sides against the side of the cart and mark the predetermined angle on the side of the cart.

Step 13: Drill pilot holes for screws and countersink to conceal the screw heads.

Step 14: Position the handles and screw these onto the sides of the cart.

Step 15: Drill out 15mm holes in the top radius of the handles for the 15mm dowel. I bevelled the inside of the hole in the handles to make inserting the dowel easier. Enlarge the hole slightly if the dowel doesn't fit in easily.

Step 16: Apply the same principle used in step 10 to attach the handle dowel to the handle sides.

Step 17: Fill the countersunk holes and any gaps left by inaccurate cuts with pine wood filler.

Step 18: Sand the cart with a 40-grit sandpaper in places where there are

Brett Mowat

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major imperfections. Then sand with 100-grit to get rid of the scratches made by the 40-grit sandpaper. I attempted to finish off with 300-grit sandpaper. In hindsight, this was probably too fine, but trial and error teaches you things best learnt by yourself. So, 200-grit would probably have been better.

Step 19: Paint the project with a good wood primer and allow time for it to dry fully. I painted the wheels with black enamel; preferably do this before final fixing to the cart sides. The rest of the cart was painted with the purple enamel paint.✂



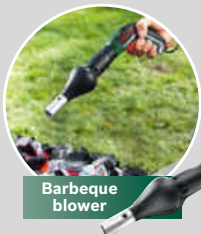
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BOSCH
Invented for life

Make a metal gate

Tenny McKenzie-Taylor shows us how to make a swing gate to enclose an entertainment area

This prompted me to think of a way to make a gate to close off the veranda area. To be effective, the gate would need a childproof latch, but still be easy to open and close. To complicate matters further, the gate needed to be hinged onto two Grecian pillars, which taper inwards towards the top. While my use of the gates was area specific the design may be used elsewhere.

My first task was to go to the drawing board and design two swing gates with all the measurements exactly to scale and planned to the millimetre. Having done that, I set about buying the necessary metal.

Step-by-step guide

Step 1: The 27mm piping for the uprights and the cross members of the frame were cut to size with 45° angles at each pipe end. These were then welded to form mitred corners for the frame of the two gates.

Step 2: Instead of using straight bars for the inner uprights, I decided to use my own design. It took many hours to cut the 80mm piping into 12 pieces, each 50mm long, and file all the edges smooth. The plan called for these to be used in-between the individual bars adding both strength and unique character to the gates.



Materials used

- 27mm square galvanised pipe (uprights and cross members)
- 80mm pipe 4mm thick (connectors for inner uprights)
- 10mm square bar (inner uprights)
- 20mm galvanised pipe (hinges)
- 20mm x 5mm flat iron bar (spacers)
- 10mm steel rod (latches)
- 12mm nuts (latches)
- Angle iron (stays)
- Bolts and washers (fixings)

My grandchildren, their spouses and my great grandchildren from Australia and America were scheduled to spend a holiday with my wife and me in Cape Town. My problem was that we have a swimming pool and I would never have forgiven myself if one of the little ones of 17 months, 18 months and four years of age wandered down the steps from the braai room and fell into the pool.

Step 3: Each upright was made from two 10mm pieces of mild steel square bar 700mm in length. After the pieces were placed in a custom made jig the bars were welded together in the middle with the 80 x 50mm piping cut previously and another small piece of square bar joined them at the end. Each assembly was cut and welded one at a time so that they were all the same. Some of the bars needed to be filed and ground to exact proportions.

Step 4: The 12 units were spaced accordingly and welded into the frames made in step 1.

Step 5: Four female hinges were made from the 20mm tubing with two small lengths welded near the top and bottom of each gate.

Step 6: Then came the most exacting work of all. I positioned the gates with a 5mm gap separating them and set the gates at 30mm above the brick paving.

Step 7: Before making the male counterpart of the hinges, metal spacers made from lengths of 20 x 5mm x 80mm flat iron had to be inserted in-between the hinges and

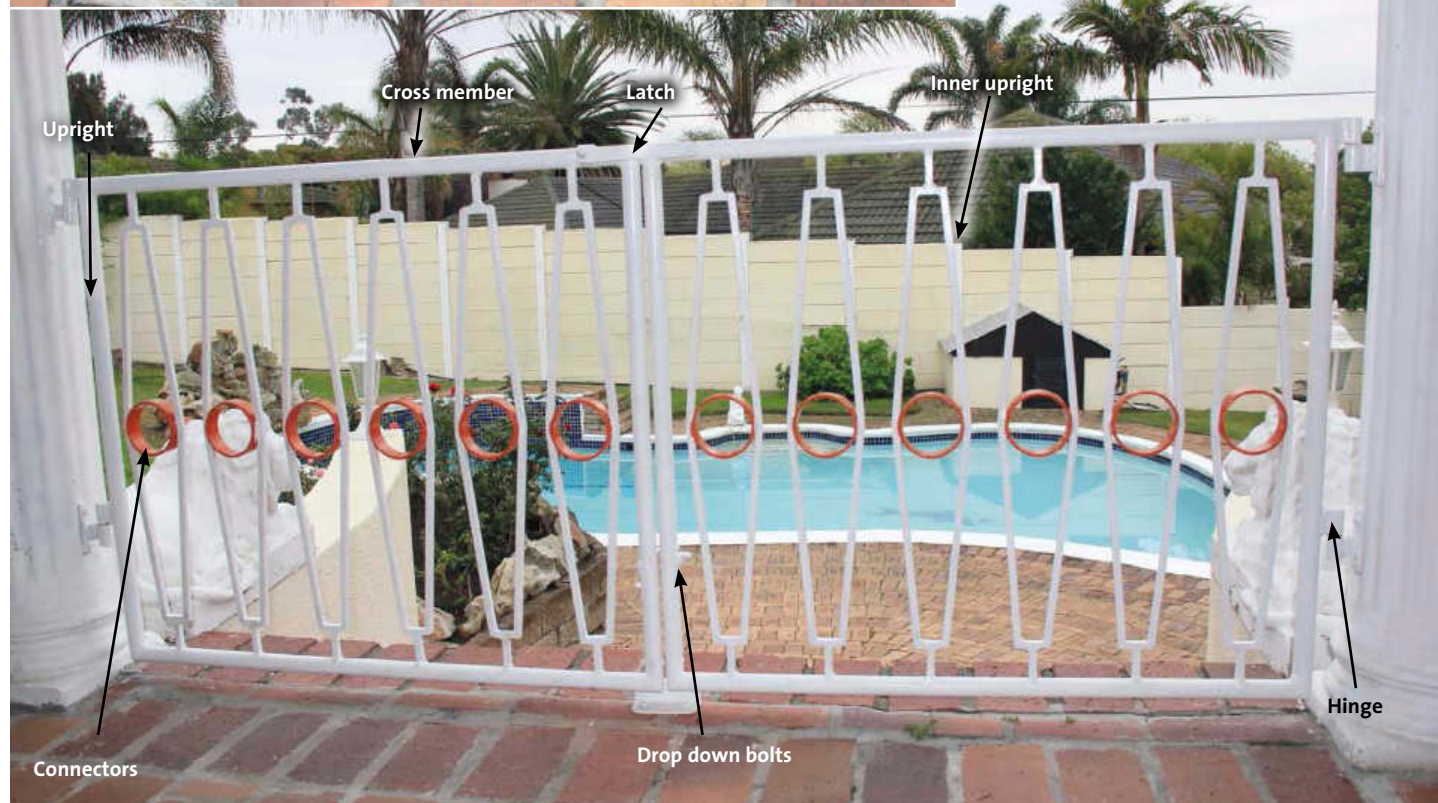
the Grecian pillars to counter the taper. These were welded to all four of the male hinges before being fastened to the pillars with Rawl plugs and bolts.

Accuracy was required when marking the pillars for drilling. The holes had to be drilled into the exact spot and the eight rawl plugs inserted and fastened. In the end both gates were perfectly level on the top and bottom with a 5mm gap between them.

Step 8: Drop down bolts were made with steel rod and drilled out nuts were welded to the centre uprights of the frame facing the outside. This was done to prevent little hands getting hold of them.

Step 9: A latch was added to the top of the gates in the centre for normal use.

Step 10: I drilled holes in the brick paving to keep the gates open when needed, and a bracket was made from angle iron fastened





Tenny stands behind the gate he made to keep his grandchildren from wandering down the stairs and into the pool area below

to the brickwork outside the gate. The two drop down bolts were located on the inside of these and prevented the gates from swinging open outwards.

Making these gates was well worth the effort and provided some peace of mind knowing I did all I could to keep my grandchildren safe. I also found satisfaction in seeing the end product and the knowledge that I had spent my time productively at my home. I really enjoyed painting the finished product in white and orange enamel paint. A great and safe time was had by all who visited my home. ✂



The drop down bolts were made from steel rod and angle iron was added to prevent it swinging open

Making these gates provided some peace of mind knowing I did all I could to keep my grandchildren safe



A latch was made to allow for opening and closing of the gate without bending down

BRIGHT IDEAS

Readers share their time-saving, space-saving or innovative ideas



First cut



Last cut

Quick and accurate dados

The process illustrated here shows how a table saw can be used to cut a dado or slot to fit a certain piece of wood. When using woods with standard dimensions, 16mm for example, this can be done with a router and a straight bit of the appropriate size. The process I use solves the problem of non-standard sized wood or the lack of a router.

Step 1: Find a piece of wood the same size as the one that must fit the slot. Clamp this to your fence.

Step 2: Directly in front of this, attach a piece of 3mm Masonite to the fence with tape. When the stock to be cut is backed up to the wood clamped to the fence, the first cut is made.

Step 3: Move the stock so it touches the Masonite and make another cut. In this instance, the 3mm Masonite compensates for thickness of the blade.

Step 4: Cut out the remaining wood left on either side of the cuts made previously. This should theoretically equal the thickness of the wood needed for the slot.

Step 5: End off by placing shims between the Masonite and fence. Remove shims incrementally until the desired cut width is obtained for a tight fit.

Tony Cronje, Morgan Bay

Prevent clogged sandpaper

I have come across numerous letters and articles on how to clean sandpaper, but none as effective as this. I was sanding my floor recently and became really fed up with the sandpaper blocking up so quickly. In desperation, I tried spraying the sandpaper with silicone before using it. To my surprise, no more clogging. The paper wore out before minimal clogging appeared. Now, I never start sanding before first giving the paper a quick silicone spray.

Vernon Wilson, Randburg



Congratulations to Brian Parker who wins a 1510W 185mm Stanley Circular Saw

Keep your trapdoor clean

For years now I have battled with my trapdoor becoming grubby. Each time you paint the ceiling, it isn't long before work must be done in the ceiling and dirty marks appear on the trapdoor. I have found an easy solution to this problem.

I purchased two cheap cupboard door handles to fit to the trapdoor so, when work must be done in the roof, you simply remove the trapdoor from the ceiling without leaving dirty hand marks all over it. I placed the two handles 150mm in from each side.

Brian Parker, Linmeyer

WINNING LETTER

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Keep the cold out

Insulation for existing and new buildings

By Aarifah Nosarka

reduce the transfer of heat into and out of the building. In winter it reduces the rate at which heat is lost from inside, and in summer it reduces the rate of heat entry into the building.

For example, on a hot day, an uninsulated home will conduct heat easily through the roof, windows and walls from the outside. This raises the temperature of the home on the inside.

Isoboard's Mark Russell says that the range of human comfort inside a home is usually between 20° and 27° Celsius. "This comfort range varies in different climatic regions, as well between summer and winter, and even between how males and females perceive being comfortable. Your perception of comfort is also influenced by how acclimatised you are to your environment, how appropriately you are dressed, air flow, as well as other factors."

Mark says that when choosing the amount of insulation to use, be aware that there is a diminishing return on the efficacy of insulation. "This means that doubling the amount of insulation does not necessarily double your comfort and halve your electricity bill." Mark suggests speaking to neighbours, friends or builder's merchants to find out the type of insulation that works best in your area.

Did you know that homes in South Africa are either insulated to a poor standard, compared to European nations, or have no form of insulation at all. In 2011 our National Building Regulations made it compulsory to fit thermal insulation in new buildings and additions to building structures.

Even though the regulation does not extend to homes built before 2011, the benefit of having your ceilings, roofs, pipes and geysers insulated is undeniable, especially with escalating electricity tariffs. Chairperson at Thermal Insulation Products and Systems Association of SA (TIPSASA), Des Schnetler says home insulation has the potential to save money on energy costs and supports a sustainable environment.

He says that finances are always a major deterrent when considering home insulation. "While life cycle costing shows that using insulation pays for itself, many homeowners, building-owners and builders are more interested in reducing initial cost than minimising total costs, which includes operating costs, both heating and cooling."

Des says that a home built more than 10 years ago can usually have insulation retrofitted to improve efficiency. "Of utmost importance is selecting a product best suited for the application and specific climatic zone."

How thermal insulation works

Insulating a home basically means having it wrapped in a 'protective blanket' to

The level of performance of an insulation product is measured by its thermal resistance or R-value. This is a measurement of the insulation's resistance to heat transfer and is expressed as a number normally between one and four. The greater the R-value, the more effective the insulation will be at resisting conducted heat flow into the building in summer and out of it in winter. One brand of insulation may be thicker or thinner than another, but if they both show the same R-value, they should perform equally.

Insulating fittings

Geysers account for approximately 42% of domestic energy usage. They also contribute 22% to the domestic sector peak demand and one quarter of the energy is wasted in standing losses. A geyser blanket can be retrofitted and pipe insulation installed over hot water pipes to reduce standing losses. Des says that pipe insulation is a protective covering designed to reduce the impact of external temperature on the pipe.



A geyser blanket keeps heat in

Wall, floor, roof and ceiling insulation

The two basic types of insulation are bulk and reflective foil insulation. Products that use a combination of bulk and reflective foil to achieve an insulating effect are known as composite bulk insulation. Des and Mark explain the different insulation types and suitability.

Bulk insulation

This is usually fibreglass, mineral wool (also called rock wool) or synthetic fibre (polyester). Bulk insulation is available in rolls, known as blankets, which are cut to fit the length of space, or in pre-cut lengths known as batts. In horizontal spaces like roofs, blankets or batts are simply laid between the timber joists.

Blanket insulation works by trapping air, which reduces heat transfer across the blanket. Mark says that blankets are effective insulators, provided they retain their loft, as it is the trapped air that offers the insulation effect, not the blanket itself. They can be laid over existing or new ceilings, and also fitted into drywall constructions.



Reflective foil under the roof and a bulk composite above the ceiling can improve insulation in all seasons



Tip

Avoid putting insulation over or around recessed light fittings like down lights or transformers mounted in the ceiling. This is a potential fire hazard. Leave a 25mm gap around the perimeter of these light fittings to allow heat generated by the light fitting to dissipate. This also applies to rheostats for light dimming systems. Always check that the product you intend using is appropriate for where you wish to use it.



Bulk insulation is available in rolls which are cut to fit between timber joists above the ceiling

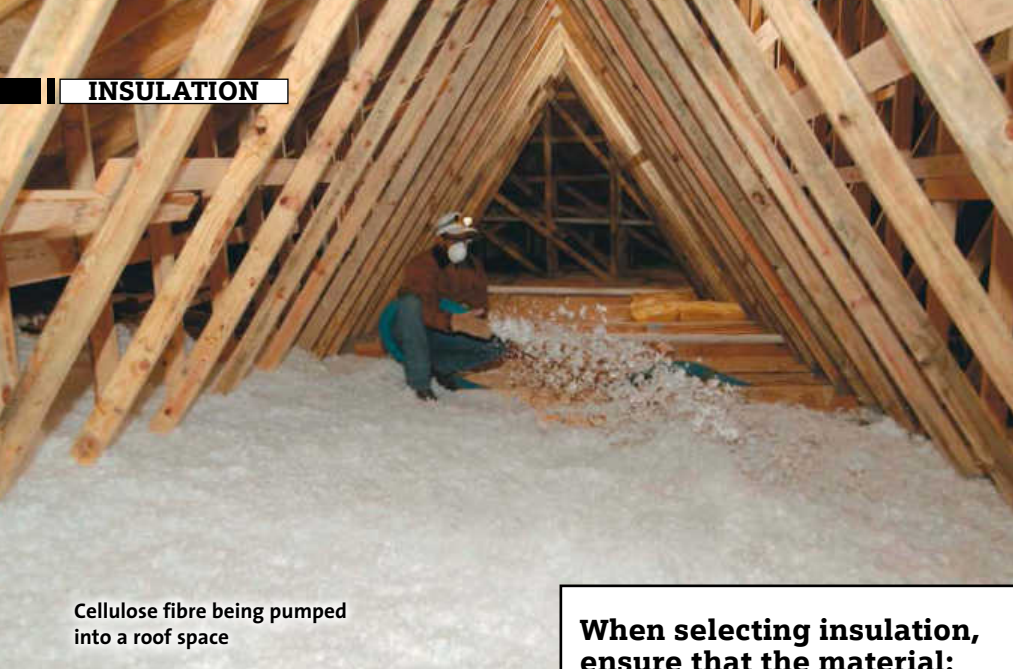
Rigid bulk insulation

This comes in pre-cut boards. Des says that these are ideal for insulating raked ceilings, solid brick external walls, under wooden floors and concrete slabs. The extruded and expanded polystyrene boards are commonly used because of their rigidity and strength. According to Mark, boards have a higher density than blanket insulators and can be used to insulate inside walls or act as roof linings or ceilings without the risk of compression.



Tip

Clad external hot water service pipes with insulation materials with a minimum R-value of 1.0.



Cellulose fibre being pumped into a roof space

Loose fill insulation

Also known as cellulose fibre insulation, it is supplied loose and poured or pumped into the roof space or cavity walls. Cellulose fibre is made from recycled paper that has been chemically treated to resist fire, rot and vermin. There are natural materials that can be used to achieve the same insulation effect. These are wool and straw bales, both of which are harder to obtain.

Reflective foil insulation

This has the ability to minimise radiant heat transfer. It can also act as a waterproofing membrane under a roof and as a moisture barrier in roofs and walls. Des says, "When using single layer reflective foil under a tiled or metal roof, bulk insulation may still be needed at the ceiling level to achieve a good level of insulation through all seasons."

Loft insulations

These are used in flat ceilings with pitched roofs. According to Des, these ceilings are the easiest to insulate. In new buildings, a reflective foil laminate is used over the rafters but below the battens of roof tiles with a minimum overlap of 150mm. Bulk insulation should also be installed, allowing for the batts and blankets to expand to their natural thickness. They are cut neatly to fit snugly between ceiling joists, and kept clear of recessed light fittings. Blow-in insulation should be sprayed with a solution that prevents disturbance from breezes within the ceiling spaces.

When selecting insulation, ensure that the material:

- Is in compliance with relevant South African National Standards.
- Is appropriate for the intended occupancy class and usage in accordance with SANS 10400 - Part A: General Principles.
- Complies with the fire safety requirements given in SANS 10400 - Part T: Fire Protection and SANS 428 - Fire performance classification of thermal insulated building envelope systems.
- Complies with the recommended R-value for the relevant climatic zones in accordance with SANS 10400 - Part XA: Energy usage in buildings and SANS 204 - Energy efficiency in buildings.

Pitched roof insulation

Where the internal ceiling line follows the pitch of a roof thermal insulation is added between rafters and beams. Des says, "Use foil under the roof sheet or tiles, perhaps in combination with a board insulator or blanket product in new buildings. Use blankets or cellulose fibre when retrofitting an existing home. Rigid board can be fixed directly beneath existing ceilings."

Under-floor insulation

According to building regulations under-floor insulation is mandatory for under-floor heating systems. In existing homes, the floor can be insulated by installing suitable board insulation around the outside of the wall perimeter, from the soil surface to a depth of about 600mm. The floor slab is the second most important component to insulate, after the roof.

Mark says that insulating the floor slab of a new home, whether around the foundation perimeter or under the floor slab, will raise the floor temperature by 4° Celsius or more.

"This is significant because the high mass floor slab retains heat, helping to moderate the room temperature".

Sources: www.tipsasa.co.za, www.isoboard.com

Rigid bulk insulation comes in pre-cut boards that can act as an insulated ceiling





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Child's play

Toymaker Dolf Joubert shares his experience with us

By Gareth Greathead

In only five years, Dolf Joubert has become well known in the woodworking fraternity for his toymaking skills. This year, he won the Tools4Wood Leap Year Woodworking Competition after entering his freightliner dump truck. To enter the competition, woodworkers are asked to submit photographs of what they have made and these are placed on the Tools4Wood Facebook page. From there, followers are able to vote for the creation they feel most worthy of winning.

How it all started

Dolf says that he did woodworking in primary school, metalworking in high school and DIY throughout his life. "I have always collected tools and enjoyed DIY around the home. Over the years, I have also dabbled in metalworking, clock-making as well as cabinetry. It is only since retiring that I have taken up the hobby more seriously. In 2011, I repaired a few damaged wooden toys for a friend and liked it so much that I started hunting for plans for a toy to make. And...the rest is history!"

The first toy he made was a tipper truck, which was published in the February 2011 issue of *The Home Handyman*. The author of the plans was DW McLaughlin. "I started with simple things without too much detail and learnt new skills and tricks as I

went along. This motivates you to take on more challenging designs that require the making of jigs and further develops your skills. The freightliner dump truck made for the Tools4Wood competition was certainly one of the most challenging."

Why toymaking?

Dolf worked in the industrial engineering sector for 44 years, but satisfaction was limited because most often you don't get to see the finished product. "When doing woodworking, you get to see the entire process and transformation as a piece of wood is crafted into something special. I enjoy the comments I get from family and friends and am usually glad when a project has been completed – especially if I battled with it. On the negative side, the workshop is in disarray and needs a major clean up.

"I have always loved cars and bikes and my wife knows this and is very much a part of my toymaking. She motivates me and, if it was up to her, I would only make old vintage cars. She doesn't want me to sell any of the toys I make. I have moved

over to trucks and have just completed a construction front end loader. I would still like to build a TLB, a bulldozer and then a steam locomotive."

The popularity of toymaking internationally means that it is easier to get hold of plans. When working with such small pieces, power tools are often too aggressive and much of the work is done using hand tools. "The great thing about toymaking is that you don't need a lot of space and not many tools are needed to get going."



The process and tools used

While building one toy, Dolf already has the next in mind. "In the evening I do a lot of research on the Internet and then decide on the scale of the model. I start drawing the project and formulate an assembly drawing to make sure all parts will fit together. At the same time, I draw up a bill of materials (BOM) and once this is done, I draw each major component individually. Selection of the different woods follows and ripping or grinding and sanding is done to get the right thickness. I then copy the component drawings, cut them out and stick them onto the wooden pieces."

The tools I use most often: files, chisels, scroll saw, disc and belt sander, bandsaw, pedestal drill, mini lathe and vernier calliper.



"I didn't have many tools to start with and managed to get by with very few. Very important were my belt and disc sander and my pedestal drill. The amount of times the sander comes in handy is phenomenal. The pedestal stand for the drill is equally useful when drilling holes for fitment of dowels and things like wheel axles where a 90° angle is of utmost importance. The first thing I bought after taking up the hobby more seriously was a scroll saw and, later, a Jet Mini Lathe. Three years ago I bought a

bandsaw and can kick myself for not having bought one sooner. It is a very safe and quiet machine and is very easy to use."

Memorable projects

Not long after making his first toy, one of Dolf's friends, who served his military service in the border war against SWAPO, asked him to make an army buffel. Finding plans for this was impossible and the two of them had to look at photographs taken at the time for details. "I took the first set of plans to my friend and these developed further until we were left with a design that replicated the real thing more accurately."

Another memorable project was a 1940 John Deere tractor. "The challenge of making the rear wheels will not be forgotten. Eventually I gave up and settled for the fourth set that I made. I experienced creep whilst cutting the tyre grooves and later realised that it was probably due to play in the mitre grooves on my table saw."

The toy Dolf battled most with was a 1904 Rolls-Royce Silver Ghost. It was made from MDF, which had to be painted red. I sanded this model down about seven times and threw it in the dustbin more than once before removing it again later. No matter how much I sanded and primed, I had no luck with Duco and ended up painting it with acrylic model paint."

Lessons learnt

Wood is not as forgiving as steel. "I learned the hard way that every piece has to be absolutely square. Initially I was of the

Power tools are often too aggressive for small pieces so much of the work is done using hand tools

opinion that 1mm or 2mm would not make a difference! Now I measure with a vernier calliper and measure several times before making a cut. Also, I sand the workpiece right from the word go. It is much more difficult to sand a completed toy. Make sure that your tools are sharp; if not, sharpen and replace them if necessary. Most importantly, do not rush a project because that's when you make mistakes. Listen to yourself!"

Dolf encourages everyone, especially youngsters, to join a woodworking association, where woodworkers share their experience. "Sometimes I present the members with a problem I'm having and it is solved within a few minutes. Learning from experienced woodworkers about the characteristics of the wood and how it reacts to machining is very useful. Another good place to find plans, ask questions and get help is the online toymakers forum (www.forums.toymakingplans.com). Plans and information can be found there, and everyone shares projects and discusses the problems encountered." ✂





The saligna tree

By Gareth Greathead

Properties

When it comes to stability, the wood is difficult to dry and surface cracking can occur while in use. Local timber merchants comment that local varieties are not as durable as those from Australia. Still, the wood maintains the characteristic of being easy to machine, work and finish.

The wood is heavy with a density of as much as 900kg/m³ when air dried. It is used for general building construction, panelling and boat-building, and is valued for flooring and sometimes furniture. In South Africa, the wood is used for school desks, laboratory counters, benches and flooring. ✂

Saligna, also known as the Sydney blue gum, is commonly found along the east coast of Australia where it is indigenous. It is a flowering (angiosperm) hardwood and reaches a height of up to approximately 55m with a 2m diameter trunk. Plantations have been established in the USA and Asia, and there are especially large operations in Australia and South Africa.

Eucalyptus saligna was named by English naturalist James Edward Smith in 1797. The species name, saligna, refers to some likeness to a willow although the similarity is not easily identifiable. This tall, straight forest tree grows in forests amongst other tall trees in clay or loamy soils and alluvial sands.

Colour

The trunk has smooth, pale grey or white bark with a 1-4m high 'skirt' of rough brown bark at the base. It has dark green leaves arranged alternately along the stems and these are 100-170mm long by 20-30mm wide.

In Australia and South Africa, white flowers appear from December to February and are arranged in groups of 7-11. The heartwood is pink to dark red in colour while the sapwood is paler and easily distinguishable from the heartwood. Once dried, the grain is usually straight, with some interlocking evident and gum veins easily identifiable.



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Valid from 1 July - 31 July 2016 - E&OE





By Gareth Greathead

Safe keeping

There are several reasons why people install a safe, whether out of necessity or for reasons of personal assurance

There are a variety of safes available today, including digital, combination and those that use keys. The one you choose will depend on what you want to protect and how determined you are to do so. Unfortunately, with so many poor quality imports around, the value of having a safe can, in fact, create a false sense of security. On the other hand, installing a good quality safe incorrectly may well be throwing money away.

Fireproof safes

Corporate companies and IT professionals are required to keep digital backups of company information in fireproof safes. Today, business people and others store large amounts of information on their laptops and this may include personal or confidential information. It is best practice to remove this information from your device regularly to reduce risk and ensure peace of mind knowing that

your information is safe no matter the circumstance. It also ensures that your work doesn't go to waste should you drop your laptop.

Family photographs and historic documents like your late mother's marriage or birth certificates from the past cannot be replaced. These will just add spark to the flame and will be the first thing to go, so keeping these in a fireproof safe can



Did you know?

Strong boxes were used by explorers and pirates alike and these featured intricately designed mechanical locking mechanisms.

prevent heartache. Photographs and money burn and gold melts, so there's that to consider too.

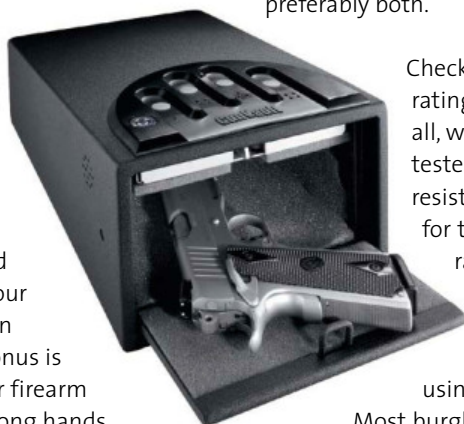
International standard organisations Underwriters Laboratories (UL) and Intertek (ETL) are independent organisations that rate wall safes according to their performance. These details can be seen on the box of a tested safe. If you want a fire resistant wall safe, choose one that will protect your goods for at least 30 minutes because most fires move through a room in about 20 minutes.

To protect these items keep temperatures below:

- Papers – 176 °C
- Old tape recordings or 35mm slides – 65 °C
- CDs/DVDs – 52 °C

Firearm safes

Not all of us have firearms, but if you do, you are supposed to have an official come and confirm compliance of your safe, however this is often difficult to achieve. The onus is on you to make sure your firearm doesn't end up in the wrong hands due to negligence. Legislation defined in the Firearms Control Act states:



"When license holders do not have their firearm on their person, they must store the firearm and its ammunition in a safe or a strong room that meets the requirements of the South African Bureau of Standards (SABS)". There are additional aspects that relate to the safety rating, location and fitment of the safe and these may vary.

In all instances, firearm safes must have at least one lock. Safes using a key lock must have at least six levers and a combination lock must have three wheels, and it is the same with an electronic lock. All safes with a net mass less than 300kg must be bolted down to the floor or wall, preferably both.

Check theft resistance ratings. Some, but not all, wall safes have been tested for burglary resistance. Again, check for the UL label. A safe rated B4 would be able to withstand an attack of at least 15 minutes using common tools.

Most burglaries take around 8-12 minutes, so a wall safe with this rating would be safe during this time.

Installation tips

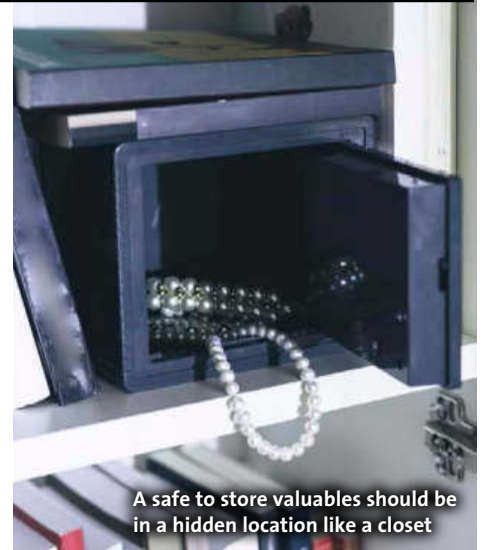
Some of the listed specifications can be confusing and buying your safe from a store that specialises in safes will give you the opportunity to speak to an expert regarding the options that would work best for you.

Location

The safe should be out of the regular traffic pattern of the house such as in a closet, the laundry room, behind a heavy piece of furniture, behind a bookcase filled with books or in a child's room. This makes the wall safe less noticeable and obvious to potential intruders.

Fitment

There isn't much use having a safe if it can be carried away and 'cracked' off site. Use the anchors supplied or purchase equivalents that meet the requirements listed in the user's manual. Avoid using cheap knock-offs of things like Rawl bolts and other anchors – these can snap or pull out from the wall. Wherever possible, position the safe on the ground and anchor it to a solid concrete floor as well as the wall behind. Make sure the safe is flush against the surface it is mounted to and avoid placing it in a location where a pry bar can be used as leverage to remove the safe.



Something simple

Many of us don't need a safe able to withstand a fire or prolonged attack with a crowbar. It may be as simple as a temporary place to store wedding bands, money and jewellery in a place where intruders, and sometimes even family, will be discouraged by the time it would take them to remove the safe. It is also handy when you find yourself in possession of a few thousand rand after the sale of a second-hand item. ✖

Source: <http://www.yalelock.co.za>

Making time

Project guide



Difficulty: Intermediate



Estimated cost: ±R350



Estimated time: 6 hours



By Aarifah Nosarka

The Home Handyman team and hobby woodworker and sales manager at Vermont Sales Greg de Villiers joined forces to create this elegant clock

Carriage clocks date back to the late 1800s. Introduced in France, these clocks were known as officers' clocks because the first mechanical clock was invented for the French military and political leader, Emperor Napoleon Bonaparte.

Pre-1900 carriage clocks were more intricately designed than modern day carriage clocks because of the complex spring mechanism and craftsmanship involved in the old clocks, while modern clocks feature quartz clock mechanisms.

This carriage clock is the fourth project taken on jointly by the team at *The Home Handyman* and Greg de Villiers this year. While this project took longer to complete than the others, the outcome made it well worth the time and effort. Candida Kruger, subscription manager at *The Home Handyman*, finds woodworking therapeutic and has become quite the DIY enthusiast since joining the magazine.

Step 1: Begin by ripping and cross-cutting the wood as per the cutting list. In the interest of safety, we cross-cut some of the smaller pieces using a compound mitre saw.



Tools & materials

- Wood of your choice
- Carrying handle of choice
- Compound mitre saw
- Router
- Airbrush and spray-paint
- Stencil sticker
- Orbital sander
- Kreg jig
- 400-grit sanding glove
- Clock mechanism
- Two hinges
- One clasp
- Clamps
- Wood glue



Cutting list

- One top steeple – 170 x 70 x 20mm (part A)
- One centre steeple – 210 x 120 x 20mm (part B)
- One bottom steeple and one base – 260 x 170 x 20mm (part C)
- Two box sides – 120 x 120 x 20mm (part D)
- Four braces – 15 x 15 x 20mm (part E)
- One door – 170 x 170 x 20mm (part F)
- One clock face – 210 x 180 x 20mm (part G)
- Glass face – 200 x 180 x 20mm



Rip the lengths of wood as per the cutting list



Tip

A sub-fence screwed to the compound mitre saw cross-cut fence and pre-marked with measurements required for the project does away with the need to continuously measure lengths when making multiple cuts. It also allows for multiple pieces to be cut at the same time.



Note

Don't be overwhelmed by the listed tools and materials used in this project. There are alternatives for both, for example cold glue and dowels can be used instead of pocket holes. There are many ways to create the clock face too.

Step 2: Thoroughly sand the lengths to prepare them for joinery. Each of the wooden components must be flattened to ensure everything goes together as planned. We used a 120-grit pad fitted to an orbital sander to prepare the individual pieces for assembly. Later, once the components have been assembled, you can progress through the finer grits until reaching 600-grit.

Clock components



Project photos by Rosemary Johnston-Fitch



2

Sand the pieces thoroughly to smooth them out



3

Pocket holes were made at the top and bottom of each brace



4

A bradpoint bit was used to drill a hole in the centre of part G for the clock spindle to fit through

Step 3: We used a Kreg Pocket Hole Jig to make the pocket holes near the ends of each brace (part E). Later these will be used to attach the top steeple and the base.

Step 4: For the clock face (part G), use a ruler and pencil to draw a line stretching from the top left corner to the bottom right corner of (part G). Also draw a line stretching from the top right to the bottom left corner. Mark an X in the centre of those markings and trace the outline of the clock mechanism over the smaller X marking.

Sanding tips

- When sanding, the rule of thumb is to sand with the grain and not against the grain.
- When using an orbital sander, pressing harder and moving faster does not speed up the sanding process. Too much pressure creates tiny swirl scratches (squiggles). To avoid this, sand lightly and at a steady pace. Also, be sure to sand the entire surface to prevent creating an uneven surface.

Step 5: Drill a hole through the middle of the X. In this instance, a 5mm Alpen brad point bit was used to make a hole for the threaded rod (spindle) of the clock mechanism. A router with template guide bushing and a custom template was used to make the rebate where the clock mechanism fits in.

Step 6: Make a 22mm groove on the inside of the box sides lengthways approximately half way in from the front or back of the box sides (D) using a router table and straight bit. This is where the clock face will slide in later. Another 5mm groove needs to be made nearer the front of the box sides to make a space for the front glass to slot in to protect the clock face. We used a table saw to do this – we lowered the height of the blade and cut a groove 4mm deep on each box side.

Step 7: With the grooves cut we took the pieces and drilled two pocket holes at the



5

A rebate was routed for the clock mechanism to fit into



6

Rout grooves on each side of both (D) pieces for glass and the clock mount (G) to fit into



7

Decorative edges were made on each of the top, centre and bottom steeples on a router table

top and bottom of each side of the 'box'. These will be used to join the completed frame body to the steeple and the base.

Step 8: Create decorative edges on the steeples (A), (B) and one of the (C) pieces. This can be done with a bit of your choice or a Roman ogee bit. These pieces will be glued together to form the completed steeple seen on the top of the clock.

Step 9: Glue together pieces (A), (B) and one of the (C) pieces using wood glue. Clamp them all together and use a wet cloth to wipe away excess glue. Since we had



8

Glue and clamp together pieces (A), (B) and one of the (C) lengths for top of the clock

limited time we used a pneumatic nailer to clamp the individual tiers together for drying. We also used a jig to aid in alignment of the tiers.

Step 10: A stencil sticker was stuck to the front surface of the clock face.

Step 11: We used an airbrush to spray over the stencil and allowed for about 15 minutes of drying time. Spray another coat of colour and let it dry. When it has fully dried remove the sticker stencil. Candida chose gold and I opted for green.

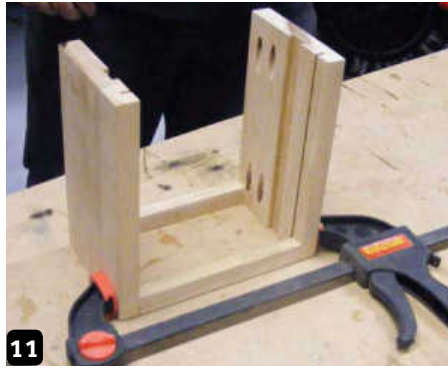
Step 12: Clamp the box sides (D) to two of the braces (E). The pocket holes on the braces (E) should be on the outside. They will align with the pocket holes made on the box sides (D), which should be on the inside. Drill screws into the pocket holes to fit the pieces together. One-inch screws were used for this project. Turn the workpiece upside-down and clamp the remaining braces in place. Repeat by drilling screws into the pocket holes. Your wooden clock frame is now complete.



9 Stick a stencil sticker over the length to create the clock face



10 Use an airbrush to spray over the stencil and allow for about 15 minutes of drying time



11 Clamp both box sides to the braces



12 Use a hand sanding glove and smooth the clock carcass



13 Carefully remove the stencil sticker

Step 13: Sand the piece lightly using a hand sanding glove with 400-grit sandpaper. Keep in mind that the finer you sand the piece, the less stain is absorbed by the wood. A sanding glove removes any squiggles or swirl marks left by the orbital sander.

Step 14: The spray-paint on the clock face should be dry. Remove the stencil sticker. Fit the clock mechanism into the recess in the back on the clock face and ensure the spindle protrudes through the



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14 Fit the clock mechanism to the clock mount



16 Attach the wooden case to the steeples



18 Screw a clasp onto the door for access to the clock mechanism



15 Drill holes in position for the handle to be attached

opposite side. Assemble the hour, minute and seconds hands and attach them in that sequence to the clock mechanism's spindle.

Step 15: Measure the length of the handle that will be attached to the top steeple (A). Make pencil markings where the holes should be made. The measurements may vary and will depend on the type of handle used. The measurement used for this handle was 35mm in from the right and left side. Drill holes and screw the handle in. The handle is a signature feature of a carriage clock. It is used to transport the device but also adds a touch of elegance to the piece.

Step 16: Attach the wooden case (assembled in step 12) to the steeples forming the top section of the clock. Drill pocket holes for these and screw together.

Step 17: Part (F) is used as the clock door, which is attached behind the clock. Clamp (F) in place and attach two hinges a few



Tip!

If you have difficulty keeping the clock door in place with a clamp, use a length of wood to hold the door in position – as illustrated in the below picture.



17 Clamp and attach the door with two hinges

millimetres apart from each other. Drill holes and screw the hinges in.

Step 18: Attach a clasp to the access door behind the clock to keep it closed and enable opening for setting the time and to change batteries.

Step 19: Slide the clock mount (G) and glass in before fitting the base (C). You can add feet to the clock for elevation and protection of the base.

Step 20: We finished off by painting wood wax on the clock and achieved an attractive result. ✂



19 Slide the clock face into the carcass before fitting the base



20 Wood wax painted on for a shiny, and attractive result

The finished clock



Note

When using a router, the correct feed direction is always against the rotation of the bit.



What we learnt about routers

When using a router, proper technique will prevent wasting good wood to router tear-out. When routing edges on pieces of wood, as was done with the top, centre and bottom steeples of this project, there are two areas of concern: end and edge grain. End grain tear-out happens when the router bit chips out small pieces of wood towards the end of the cut. Edge grain tear-out can happen when routing against the grain. The solution: Begin by routing the end grain of the piece of wood followed by the edge grain. If there is moderate tear-out along the end grain, this may be cut away when routing the edges.

Handheld routers spin clockwise and require a feed direction moving from left to right because the bit faces down. When a router is mounted to the table, the bit will face upwards, reversing the feed direction. If you feed your length in the wrong direction, it can be difficult to keep control of the wood being routed. Following the correct feed direction ensures safer, cleaner and easier working.

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Router safety tips

- Use a push stick to keep your hands at a safe distance from the bit.
- Wear goggles to protect your eyes.
- Ear protection is essential when routing for long periods.
- Baggy clothing should not be worn, or, if it is, it should be tied back, otherwise it can be caught and pulled into the bit.

See the video!



For behind the scenes footage of the team in action building this clock project go to our Facebook page (TheHomeHandymanmagazine) or find it on our website:

www.homehandyman.co.za



All about circular saws

By Aarifah Nosarka

Rip, cross-cut, bevel, mitre and cut straight lines with this versatile tool ideal for those DIY'ing on a budget

The circular saw became popular near the end of the 18th century when it was used to convert logs into lumber (timber) at sawmills. As is normally the case there is disagreement about when, where and who came up with the concept.

There are different blades, each designed with a particular purpose in mind. Different diameter blades are matched to each saw and range in size from around 140 to 610mm and even bigger. The most popular blades are those for wood which are made from high speed steel (HSS) and feature carbide-tipped teeth. When fitted with the proper blade, the saw can be used to cut metal, and through masonry such as brick, stone and concrete.

Technically speaking any abrasive or cutting disc rotating on a central hub may be called a circular saw – for example the table saw and compound mitre saw are forms of circular saws. In woodworking the term circular saw refers specifically to the hand-held type power tool.

Circular saw setup

Tilting the saw blade with respect to the top surface of the wood is referred to as bevel adjustment. By adjusting the bevel, you are able to cut the edge at a variety of angles. When it comes to depth of cut, a rule of thumb is to have less blade protruding below the bottom surface. Managing director at Diesel Electric Bob Gillies says, “Before making a cut, set the blade depth so that only one tooth of the saw blade extends past the bottom of the wood.

This reduces the amount of blade buried in the wood and the chance of the saw binding to the wood causing kickback.”



Tip

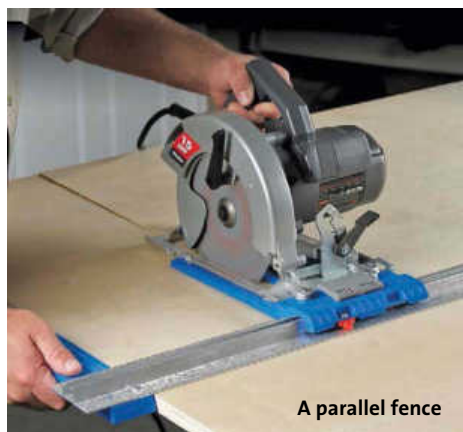
Ensure all adjustment levers or locks are adequately tightened. This prevents the blade shifting or tilting when cutting.





Tip

To avoid wood splintering score the cut line with a utility knife before cutting.



A parallel fence

Safety

Circular saws are dangerous and noisy power tools, so invest in a decent set of earplugs. Wear safety glasses to protect your eyes from sawdust and flying chunks of wood. Always read the user manual that comes with the circular saw you purchase and take note of special precautions.

Safety checklist

- Ensure that the circular saw is in good working order and properly set up.
- The power cord should not be frayed.
- Ensure that the lower guard is operating freely and closing.
- Inspect the saw for misaligned or broken parts.
- Keep the worksite clean, neat and clutter free.
- Ensure that you are not distracted when using the circular saw.
- Baggy items can get pulled into the power tool.
- Check the blade for chipped or broken teeth.
- Always unplug the saw before inspecting or attempting to change any settings.
- The blade should be at speed before entering and after exiting the cut.



A guide rail

Parallel fence

Many circular saws come with a parallel fence. "Handheld circular saws with parallel guides are ideal when cutting narrow strips from a long length of board or wood. The parallel guide that comes with small to medium size circular saws with a 190mm blade enables cutting of wood strips up to 200mm in width." According to Bob, cutting about 25mm off the bottom of a wooden door is easy with a circular saw and parallel guide, but nearly impossible with a saw table. Similarly, it is awkward trying to run a long wide board against the fence of a table saw, especially if doing it alone.

Guide rails

Nowadays, a larger number of power tool manufacturers are selling circular saws with guide rails included, and others offer guide rails as an optional accessory. When a circular saw is used in conjunction with a guide rail, you can achieve near perfect straight cuts without the use of a table saw. This is particularly handy when cutting materials that will be joined together. "Various brands have guide rails with rib and groove systems designed for a particular circular saw. Good quality guide rail systems come in the form of an aluminium rail, about 150mm wide with a raised centre rib. The rails range between 700 to 1400mm in length and some can be joined together for longer length.

How it works

The rail is clamped to the surface of the wood with concealed clamps. The saw glides along the rail, giving a perfectly



Tip

Use blades that are suitable for the type of material you are cutting. A blade with fewer teeth (T) will result in a rougher cut while a blade with more teeth produces a cleaner cut.

straight cut with no deviation to the left or right. These rails are particularly useful for cutting wide boards into widths that are too wide for the table saw and parallel guide to handle.

DIY guide rail assemblies for straight cuts

A straight edge (piece of MDF) clamped to a board guides the base to run along a predetermined line and can be used as an alternative to a guide rail. "When using a straight edge clamped to a board, there must be no obstructions to hinder the saw moving off the board, which in turn results in a skew cut."

Cross-cuts

Making perfectly square cross-cuts with a circular saw is easy if you guide the saw with a framing square or clamp it parallel to a guide. Hold the saw in place with its blade right on the cut line. Then slide the square against the saw's base plate, and press it tightly against the edge of the board. ✂



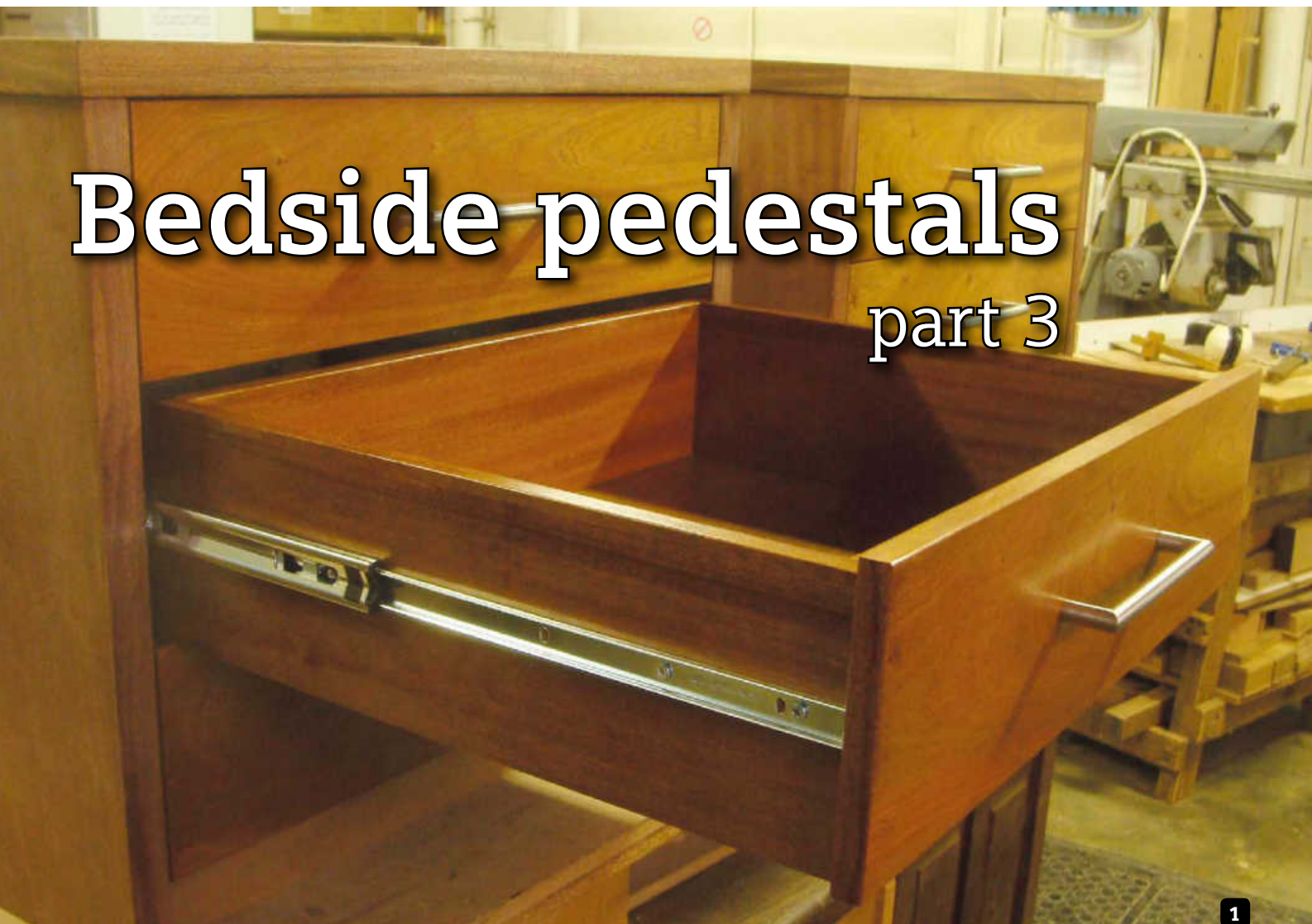
Tip

Support the board or wood being cut on either side of the cutline with trestles or similar to prevent binding, kickback and a rough edge.



Bedside pedestals

part 3



Denis Lock again demonstrates the value of using gauges and shims when he completes assembly of his son's bedside pedestals with the installation of soft-close runners and drawer fronts

There are basically two ways to hang drawers. The skilled cabinetmaker would probably use shop-made wooden runners for fine furniture. There is something special about wood-on-wood drawer runners. Commercial runners (metal and plastic) meet the needs of many woodworkers and many applications. The cabinet work in kitchens, offices and retail

outlets uses metal/plastic runners almost exclusively. The latest generation of under-mount soft-close runners are increasingly used in fine furniture.

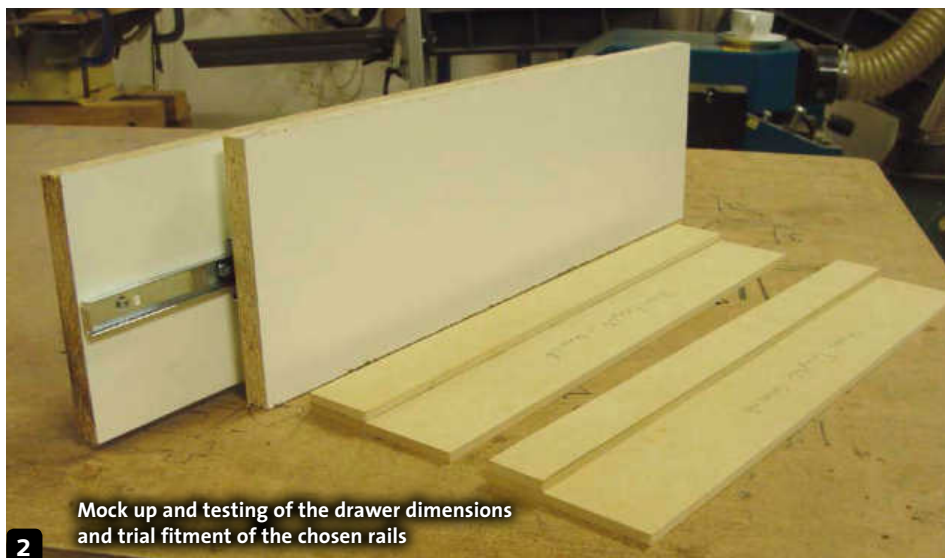
I decided to use full extension ball-bearing runners on the pedestals (photo 1). This was basically a compromise between the cost of soft-close under-mount runners and the

work involved in wood-on-wood runners. The runners come as left/right pairs. Each runner consists of two parts: depressing a simple plastic catch allows the two parts to be separated. One piece attaches to the drawer and the other attaches to the cabinet side. These two pieces must be accurately fitted – there is almost no leeway. A ruler and pencil markings will not do. I made five gauges to ensure accurate fitting.

I started with the mock-up seen in photo 2. The left piece of melamine is the same size as a drawer side. The right-hand piece is 2mm higher than the applied drawer fronts. This 2mm is the target gap between drawers. The runner can be placed

anywhere on the drawer side as long as it is parallel to the bottom edge. I decided to set them about halfway. The mock-up simplified the preparation of the two distance gauges seen in photo 2. One is to attach the runners to the drawer sides. The other is to attach the first cabinet runner piece. The mock-up also allowed me to check that the heads of the screws I was going to use did not snag each other.

Photo 3 shows one gauge being used to position the drawer piece of the runners. This gauge ensures that every piece of runner is parallel to the top of the drawer and that every piece of runner is the same distance from the top edge of the



Mock up and testing of the drawer dimensions and trial fitment of the chosen rails



A gauge was clamped flush against the top portion of each drawer for accurate runner placement

drawer side. The small MDF stop clamped to the drawer front (top left corner of photo 3) ensures that the front-back positioning of every runner piece is the same. We will see later how this did away with the need for drawer stops. Photo 4 shows all of the runner pieces fitted to the six drawers. The first gauge was used 12 times.

Photo 5 shows the second gauge being used to position the topmost runner piece on one of the cabinet sides. A third gauge (seen on the right of photo 5) ensures that the front-back positioning of every runner piece is the same. These two gauges were used four times – two pedestals times two sides each. The second and third runners need to be 154mm lower. This figure is 2mm more than the height of the applied



All drawers fitted

drawer fronts. As has been previously stated, 2mm is the target gap between drawers. An offcut was accurately cut to 154mm long. This piece was then split in half on the bandsaw (photo 6). Whenever I need two identical gauges, I cut one from a thick piece of wood and then split it into two.

The two 154mm gauge blocks were used to make three equally spaced cuts in another offcut. This is shown in photos 7, 8 and 9. The three spots marked 'X' in photo 9 were then cut out as dados large enough to fit over cabinet side runner pieces. The dadoed piece was then split in half to give two identical runner-spacing gauges. The use of these can be seen in photo 10. Note the use of two small wedges to hold the runners in place while the screws are inserted. The operation shown in photo 10 was repeated another three times: once more in the same orientation and twice in the opposite hand orientation.

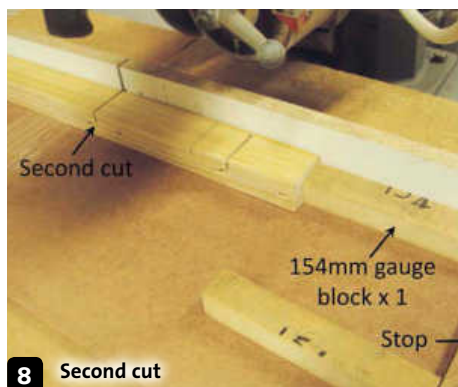
The cabinets were then assembled and fingers were crossed. The moment of truth had arrived! I can state, without any fear of being struck by lightning, that all six drawers fitted perfectly first time.



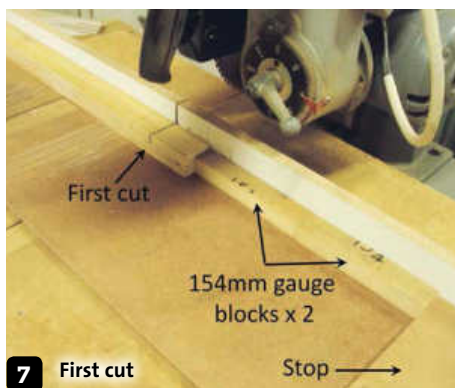
Gauges were again used for placement of the runners inside the cabinet



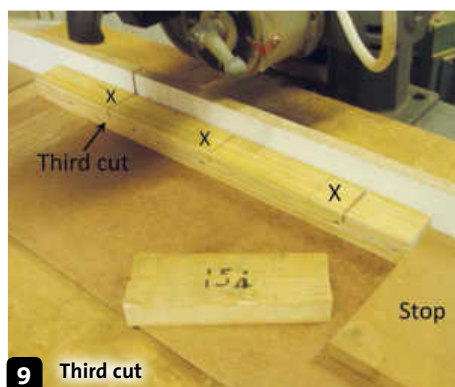
6 Identical gauges were made by sizing one piece of wood and cutting it in two



8 Second cut



7 First cut



9 Third cut

Not a single screw had to be adjusted. The result is seen in photo 11. The time spent in making gauge blocks had been repaid with interest. In fact, at this stage, the six drawers were totally interchangeable.

The final task was to attach the applied drawer fronts to the drawer boxes. A packing strip (photo 12) was machined (thickened) to hold the bottom drawer front level and at the correct height. Also seen in photo 12 are the matching sets of shims used to centre the drawer front. I missed my target of a 2mm gap by 0.3mm. This explains the coloured paper shims in addition to the white plastic 2mm gauge. The applied drawer front was held to the drawer box by two C-clamps. Note the use of a cork pad under the MDF clamping pad. The drawer was removed with the front clamped in place and four screws driven from the inside of the box to hold the front. Photo 12 shows the positioning of the middle drawer front. Note the four 2mm plastic gauges. Photo 13 shows the positioning of the top drawer front.



10 Spacing runners

A number (1 through 6) was stamped on the back of each drawer. The 3mm back panels were attached and these were also stamped (photo 13) to show which three drawers belonged where and note that the numbering was done top down. The holes for the handles had previously been drilled and all that remained was to extend these holes through the drawer box front (photo 16). The C-clamp holds a piece of

scrap MDF to avoid breakout. The handles were attached and the tops fitted. I was more than pleased with the final result. I had approached this project as a challenge in accuracy. Next time I will shoot for 1mm gaps around the drawers.

There may be a nagging question on your mind. Is the approach I have described in this set of three articles a lot of extra work? It is different work, not extra work! If I had made the pedestals out of solid wood (and I'm not sure that the design lends itself to a solid wood implementation), the following steps would have been necessary. Plane a flat surface on each board and joint a straight edge on each board.

Thickness all boards to the same thickness and rip to width. Joint the ripped edge. Decide which boards should be joined to which in order to get a good colour and grain pattern match. Edge-to-edge join six groups of three (maybe four) boards to get the desired width of 500mm. Surface sand the joined up boards. I would have had to buy 38mm boards and thickness them to 28mm.



11 Testing the spacing of the drawer runners before mounting the drawer fronts



Contact

Denis Lock runs a router school and shop in Bedfordview, Gauteng. He can be contacted at denis.lock@worldonline.co.za or 082-267-5948. Visit his website at www.routingwithdenis.co.za



12 A packing strip and shims ensured accurate placement of the drawer fronts



13 Middle drawer face



14 Top drawer face



15 The drawers were numbered to avoid mixing them up later



16 Drilling for handles



Finished and ready for delivery

The Woodworker's Corner is a woodworking showcase

Grandson's rocking horse

Mark Wiggill from Greenside made this 1m x 1m rocking horse for his grandson and painted it with Annie Sloan chalk paint. The motivation was the birth of his grandson, to whom it was given for his christening.



Please send us pictures of your projects. Write a caption with your name, inspiration, type of wood, etc. and send it to editorial@homehandyman.co.za

Metal headboard

Sonia van Niekerk and her husband, a welder and boilermaker, joined forces to make a metal headboard for their bed. The metal frame was made using rectangular mild steel tubing welded together at the necessary points. They left gaps in-between the bars of the welded frame, allowing for planks of sleeper wood and mirror mosaic inlays to be added. The bedside tables on either side were welded directly to the frame and have drawers and cupboards below. The frame was secured to the wall with Rawlplugs to ensure a peaceful night's sleep.



BOOKSHELF

General manager at Hardware Centre Marius Ackerman reviews the latest in woodworking literature

The Complete Guide to Outdoor Carpentry

Author: The editors of Creative Publishing, in co-operation with Black & Decker

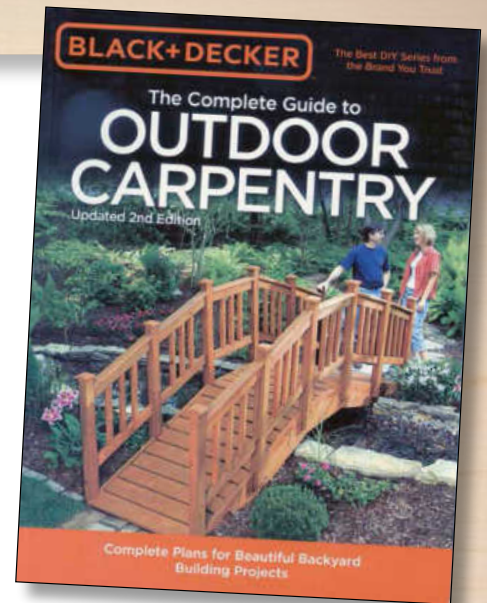
Publisher: Cool Springs Press

The editors of Creative Publishing, in co-operation with Black & Decker, have launched a range of books aimed at the DIY enthusiast. The books cover most areas of interest to a DIY enthusiast, and may just prove to be essential for all DIY-minded people.

Nothing quite captures the imagination and provides a sense of accomplishment like creating beautiful, functional furnishings for your garden. The Complete Guide to Outdoor Carpentry features many practical and beautiful projects to try your hand at, such as picnic tables, garden bridges and more. Even if you do not own the latest range of tools, or have minimal carpentry experience, building for the outdoors is a great way to develop and enhance your skills and acquire some first-class garden décor – at a fraction of the price of purchasing them from a commercial store.

The book provides plans for a wide range of projects and all plans are complete with measurements, a cutting list and full colour, step-by-step photographs with clear instructions. The plans cover all skill levels, and allow you to progress to projects requiring a more skilled approach as your experience and skill levels improve.

With so many elegant and original furnishings in this 240-page softcover book, you're sure to find many a project that will suit your home and your ambitions.



*For more information, contact Hardware Centre
on 011-791-0844 (Randburg)
or 021-421-7358 (Cape Town)*

DIY Christmas present

During the Christmas holidays, my girlfriend and I were enjoying a nice, long break away from university. With so much time on our hands, we decided to use it constructively by making Christmas presents. When Christmas came, we had so many gifts; not all of them can be described in this space, but the bench we restored for my parents deserves special mention.

It started out as a rusty frame buried in sand in the garden with no wood on it and pieces missing. We started by cleaning up the frame and giving it a fresh coat of paint. After that, we got some recycled wood to use for the seat. The bench originally belonged to my grandparents and was on their farm. My grandfather bought the bench at an auction in Durban back in the day, and attached to it is a plaque with the name of my grandparents' farm.

Michael Saunders, Pinetown



Woodworking associations

Woodworking associations' details are available on our website at www.homehandyman.co.za

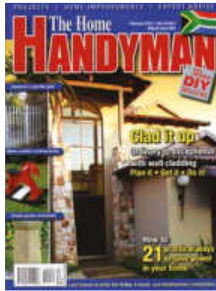
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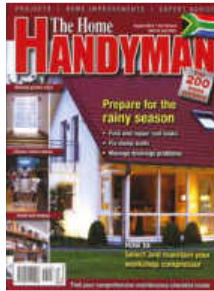
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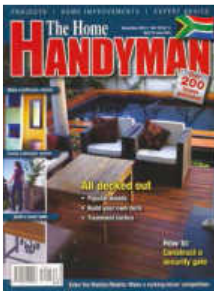
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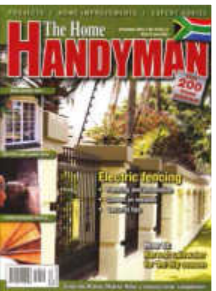
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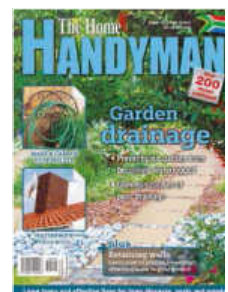
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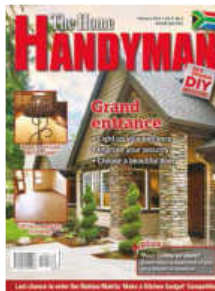
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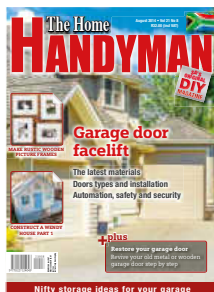
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DIY has a social media side as well

Popular Facebook posts

DIY: Make a metal drum braai

<http://bit.ly/1TokKCQ>

#homehandyman #drumbraai
#metalworking



21 secret hiding spots

<http://bit.ly/1VjVCKt>

#secretcompartment #hiddenspot

Note: This issue features an article on secret storage for valuables. See page 22.



Why tiles lift or crack

Find out why tiles lift or crack and what to do

<http://bit.ly/1NwcMIC>

#tilingsolutions #homemaintain



Make a young artist's easel

<http://ow.ly/4mVRe3>

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We are on Pinterest!

Did you know that *The Home Handyman* magazine has a Pinterest page? Follow, like or pin us on pinterest.com/homehandyman/

See the video

View a behind-the-scenes video of our team working on the carriage clock project on page 44. Go to our website: www.homehandyman.co.za or view it on our Facebook page and give us your comment.



Handy Tweets



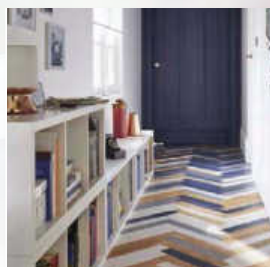
@DIYDepotSA

Did you know? An ancient form of spray-paint involved blowing paint through hollow bird bones.



@MyFixitUpLife

I am loving this idea. Paint a few wood boards to create a unique rhythm and quiet playfulness down a hallway #hosscolor



@Homehandymanmag

Throwback Thursday:

120 clever uses for old things

<http://ow.ly/iV8B3000Yyc>

#upcycling #repurposing



At the polls

The results are in for the below poll:
Would you like more metalworking articles featured in the magazine?

→ Yes: 72% No: 28%



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The remote control saga

Reuben the Screwman has some trouble finding the right remote

It was whilst packing to relocate to Barrydale that I came across my magnificent collection of remote controls in the 'man drawer'. For those who are not familiar with the 'man drawer', it is the drawer in the house where you will find old remote controls, used batteries, unopened chopsticks from Chinese takeaways and other nondescript items. Isn't it peculiar how easy it is to toss out a faulty DVD player, yet you cling onto the remote? Anyway, it was the remotes that reminded me of an occasion with friends and remote controls.

The odd glass of Merlot and maybe a Scotch or two blurred my memory somewhat and trying to press the right button became a game of chance

I am a collector of rare jazz DVDs, and it was a custom of mine whenever I imported one of these to invite some close friends for dinner and a show. On this particular evening, I had just taken delivery of a surround sound system that comprised myriad amplifiers, players, woofers, subwoofers, a TV, the list goes on. Each had its own remote! The evangelical salesman who sold me the system came and installed it and gave a quick demonstration on how to operate the monster. "It's as easy as pie," he said as he jumped from one remote to another. The stage was set – an evening with Al Di Meola was on the cards.

Drinks were flowing and there was, shall we say, a festive mood amongst the guests. As dinner turned into a wine tasting, the festive mood escalated to a rip-roaring party. It was time for the main event of the evening. Once everyone was seated, I reached for the first remote control, desperately trying to remember the sequence of buttons to press. As the effect of the odd glass of Merlot and maybe a Scotch or two blurred my memory somewhat, trying to press the right button became a game of chance.

Some of the guests became a little impatient and wanted to try their hand at getting the show on the road. This activity soon turned into a scenario resembling that of when you lock your keys in the car. Within minutes, there is a queue of guys at each window with coat hangers and similar items waiting their turn to put their criminal side to the test. Funny though, when you have a flat tyre, they give you a wide berth.

This game of "No dude! Press this button first, then press that" went on for most of the evening without any real success. When we got the picture right, there was no sound; when we got sound, there was no picture. There is an old Afrikaans saying that rang true that night, "*Brandewyn het nie brieke nie*" (brandy has no brakes). It was eventually agreed that we should leave the show for another night and get on with what we seemed to have mastered with resounding success, and that was to party. It took another lesson or two before I could operate the system. It's a bit like flying a helicopter. ✖

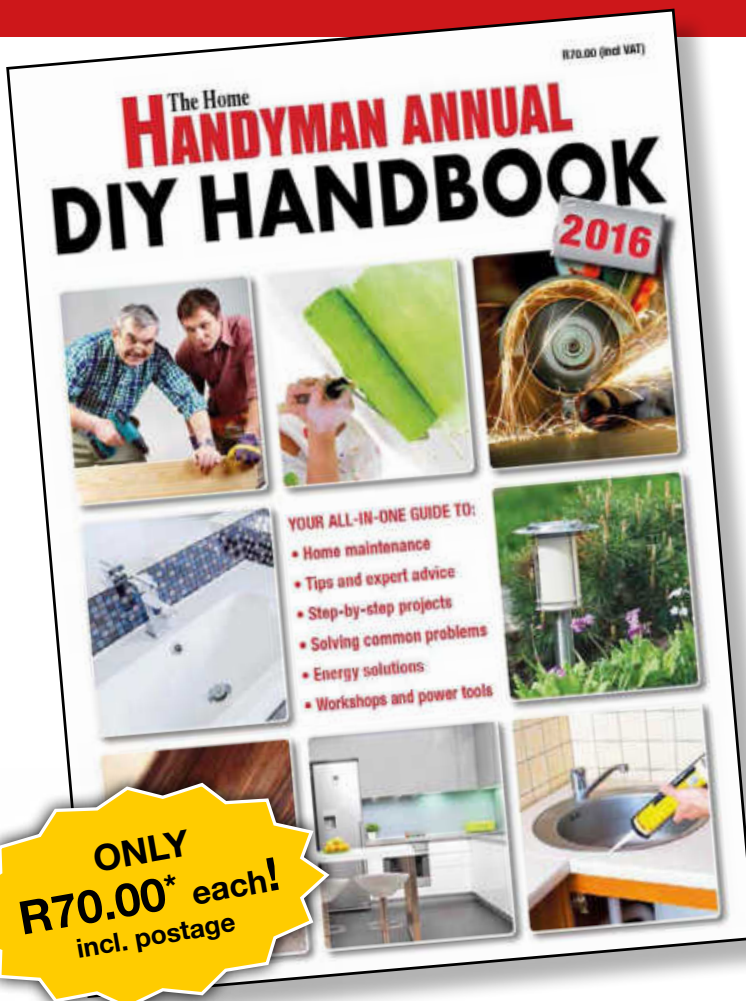
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